

Appendix D

2002 Emissions Inventory
Methodology and Documentation,
and Appendices A through E for
Inventory Documentation

**2002 OZONE PRECURSOR EMISSIONS INVENTORY
METHODOLOGY FOR THE DEVELOPMENT OF A
REDESIGNATION REQUEST FOR A KENTUCKY 8-HOUR OZONE
NONATTAINMENT AREA**

AS REQUIRED BY THE CLEAN AIR ACT

**FOR THE KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND 8-HOUR OZONE NONATTAINMENT AREA
LOCATED WITHIN**

(BOYD COUNTY)

Prepared by

THE KENTUCKY DIVISION FOR AIR QUALITY

Submitted by

THE KENTUCKY ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

May 2006

TABLE OF CONTENTS

1.0	BACKGROUND & EMISSIONS SUMMARY	1.1
1.1	Background	1.1
1.2	Emissions Summary.....	1.2
1.3	References, Section 1	1.4
2.0	POINT SOURCES.....	2.1
2.1	Introduction and Scope	2.1
2.2	Methodology and Approach	2.1
2.2.1	Review of Existing Database	2.2
2.2.2	Source Survey	2.2
2.2.3	Data Evaluation.....	2.2
2.2.4	Data Compilation	2.3
2.2.5	Emission Calculations.....	2.3
2.3	Summary of Point Source Emissions	2.4
2.3.1	Kentucky Portion of Louisville KY-IN, Ozone Maintenance Area	2.4
2.4	References, Section 2	2.6
3.0	AREA SOURCES	3.1
3.1	Introduction & Scope	3.1
3.2	Methodology & Approach.....	3.1
3.2.1	Source Category Identification	3.1
3.2.2	Emission Estimation Approach	3.1
3.3	Summary of Area Source Emissions	3.2

3.4	Discussion of the Area Source Categories	3.2
3.4.1	Gasoline Distribution.....	3.2
3.4.1.1	Storage Tank Breathing Losses	3.3
3.4.1.2	Tank Trucks in Transit	3.4
3.4.1.3	Vehicle Refueling	3.5
3.4.1.4	Tank Truck Unloading.....	3.5
3.4.1.5	Aircraft Refueling	3.6
3.4.1.6	Petroleum Vessel Loading & Unloading.....	3.7
3.4.2	Stationary Source Solvent Evaporation.....	3.7
3.4.2.1	Dry Cleaning.....	3.7
3.4.2.2	Surface Cleaning	3.8
3.4.2.3	Surface Coating.....	3.10
3.4.2.3.1	Architectural Surface Coating.....	3.10
3.4.2.3.2	Automobile Refinishing	3.12
3.4.2.3.3	Traffic Markings.....	3.13
3.4.2.3.4	Other Small Industrial Surface Coating.....	3.14
3.4.2.4	Graphic Arts	3.14
3.4.2.5	Cutback Asphalt Paving.....	3.16
3.4.2.6	Emulsified Asphalt.....	3.17
3.4.2.7	Pesticide Application	3.17
3.4.2.8	Commercial/Consumer Solvent Use.....	3.18
3.4.3	Waste Management Practices	3.19
3.4.3.1	Publicly Owned Treatment Works.....	3.20
3.4.3.2	Industrial Wastewater	3.21
3.4.3.3	Hazardous Waste Treatment, Storage & Disposal	3.21
3.4.3.4	Municipal Landfills	3.21
3.4.3.5	Solid Waste Incineration	3.22
3.4.3.5.1	On-Site Incineration	3.23
3.4.3.5.2	Open Burning.....	3.25
3.4.4	Small Stationary Source Fossil Fuel Use.....	3.27
3.4.5	Bioprocess Emission Sources	3.27
3.4.5.1	Bakeries.....	3.27
3.4.5.2	Breweries	3.28
3.4.5.3	Wineries	3.28
3.4.5.4	Distilleries	3.28
3.4.5.5	Silage Storage	3.28
3.4.6	Other Area Sources.....	3.28
3.4.6.1	Miscellaneous Combustion Sources	3.28
3.4.6.1.1	Forest Fires	3.29
3.4.6.1.2	Structure Fires.....	3.30
3.4.6.1.3	Slash & Prescribed Burning	3.31
3.4.6.1.4	Agricultural Burning.....	3.32
3.4.6.1.5	Orchard Heaters	3.32
3.4.6.2	Leaking Underground Storage Tanks	3.32

3.5	References, Section 3	3.34
4.0	NON-HIGHWAY MOBILE EMISSIONS	4.1
4.1	Introduction.....	4.1
4.2	Methodology & Approach.....	4.1
4.3	Summary of Emissions	4.1
4.4	Discussion of Nonroad Categories.....	4.1
	4.4.1 Other Nonroad (i.e., Non-Highway) Sources.....	4.1
	4.4.2 Aircraft Emissions	4.2
	4.4.3 Locomotives	4.2
	4.4.3.1 Line Haul Locomotives.....	4.3
	4.4.3.2 Yard Locomotives	4.4
4.5	References, Section 4	4.7
5.0	HIGHWAY VEHICLES	5.1
5.1	Introduction.....	5.1
5.2	Emissions Estimation Process	5.1
	5.2.1 Overview of Highway Vehicle Emissions Estimates	5.1
	5.2.2 Inputs to MOBILE6.2.....	5.2
	5.2.2.1 Run Section Data.....	5.2
	5.2.2.2 Scenario Section Data	5.2
5.3	Summary of Highway Vehicle Emissions	5.3
5.4	References, Section 5	5.5
6.0	BIOGENIC EMISSIONS	6.1
6.1	Background	6.1
6.2	Methodology	6.1
6.3	Summary of Biogenic Emissions.....	6.1

6.3.1 Ozone Nonattainment Area**6.1**

6.4 References, Section 6**6.4**

Appendix A Point Source Emissions Inventory Information

Appendix B Area Source Emissions Inventory Information

Appendix C Non-Highway Mobile Runs

Appendix D Mobile Model Runs and Documentation

Appendix E Biogenic Emissions Inventory Information

Appendix F 401 KAR 63:005 Open Burning Regulation

1.0 BACKGROUND AND EMISSIONS SUMMARY

1.1 BACKGROUND

Kentucky has developed a 2002 ozone precursor emissions inventory submittal for the Kentucky portion of the Huntington-Ashland 8-hour ozone nonattainment area (i.e., Boyd County). The Kentucky portion of the Huntington-Ashland area was designated nonattainment for the 8-hour ozone standard effective June 15, 2004, per an April 30, 2004, *Federal Register* notice. This document presents Kentucky's 2002 ozone precursor emissions inventory for Boyd County in Kentucky. This inventory was developed based on EPA guidance, direct consultation with EPA personnel, and previous emission inventory development experience. The inventory includes reactive volatile organic compounds (VOC), oxides of nitrogen (NO_x), and carbon monoxide (CO) emissions for area, point, non-highway mobile, highway mobile and biogenic sources.

The point source inventory was developed using the Division's existing emissions inventory database (i.e., TEMPO). The existing TEMPO database was updated using questionnaires and annual surveys completed by the sources and quality assured by division personnel.

Nonattainment area population information for Kentucky is provided in Table 1-1. The data provided in Table 1-1 are vital to many emission calculation procedures used to develop the emissions inventory, particularly for area and nonroad mobile sources. These data are frequently referenced throughout this document.

**TABLE 1-1
2002 POPULATION**

Kentucky Portion of the Huntington-Ashland Ozone Nonattainment Area

COUNTY	AREA APportionment Factor	TOTAL POPULATION	POPULATION APportionment Factor	APportioned COUNTY POPULATION
Boyd	1.000	49,603	1.000	49,603
Total		49,603		49,603

1.2 EMISSIONS SUMMARY

In preparing this inventory, several other agencies contributed information to the Division necessary for completing emission calculations. The Kentucky Transportation Cabinet¹ provided information essential for completing the mobile emissions portion of this document. The Kentucky Economic Development Cabinet² and the State Data Center³ provided valuable population information used primarily in the preparation of the area source inventory.

Within the nonattainment areas, VOC, NO_x, and CO emissions were calculated for point, area, nonroad mobile, onroad mobile and biogenic sources.

The Division's existing point source emissions inventory database (TEMPO) was used to produce point source information. This database is updated annually for Title V major and minor sources and on a varying schedule for other sources. A copy of the point source inventory survey is included as *Appendix A* to this document.

Area source emissions were generally calculated based on current population, employment, and commodity data. Population related information was provided by the State Data Center³ and the Kentucky Economic Development Cabinet.²

Highway vehicle emissions were estimated by using Mobile6.2 generated emission factors and daily vehicle miles traveled (DVMT) estimates. DVMTs and speed information were obtained from the Kentucky Transportation Cabinet¹.

The VOC emissions calculated in this document are for those VOC emissions determined by EPA to be photochemically reactive. All identified nonreactive VOC emissions have been removed, including perchloroethylene emissions from dry cleaning and surface cleaning.

A summary of the VOC, CO, and NO_x emissions in tons per summer day for the nonattainment area is provided in Table 1-2. This document includes emissions data with pre-existing controls in place. These emission control measures include autobody refinishing, consumer solvent use, architectural surface coating, traffic markings, and open burning; fuel and engine control measures related to on-road and non-road mobile sources including Phase II of the RFG program, along with requirements on vehicle refueling and reduced evaporative emissions; and engine control measures include the National Low Emission Vehicle program, along with requirements on nonroad diesel engines, small nonroad engines (lawnmowers and garden equipment), and outboard marine engines.

diesel engines, small nonroad engines (lawnmowers and garden equipment), and outboard marine engines.

Point source emissions are described in Section 2 with supporting information provided in *Appendix A*. Section 3 documents the area source inventory process with supporting information in *Appendix B*. Non-highway mobile emissions are discussed in Section 4 with supporting information in *Appendix C*. Mobile source emissions are discussed in Section 5 with supporting information in *Appendix D*. Biogenic emissions are documented in Section 6 and *Appendix E*.

TABLE 1-2
SUMMARY OF 2002 EMISSIONS
(Tons Per Summer Day)

Kentucky Portion of the Huntington-Ashland Ozone Nonattainment Area

COUNTY	MOBILE AREA			POINT			NON MOBILE			HIGHWAY			TOTAL		
	VOC	CO	NON VOC	CO	NOx	VOC	CO	NOx	VOC	CO	NOx	VOC	CO	NOx	
Boyd	2.86	29.87	4.21	2.81	1.21	0.09	19.74	175.09	20.29	0.76	9.49	1.85	33.01	-	0.15
Total Emissions	12.86	29.87	4.21	1.21	0.09	19.74	175.09	20.29	0.76	9.49	1.85	33.01	0.15	59.18	215.66

1.3 REFERENCES FOR SECTION 1

1. Kentucky Transportation Cabinet, Daily Vehicle Miles Traveled, 2002. Frankfort, Kentucky.
2. Kentucky Economic Development Cabinet, 2002 Kentucky Deskbook of Economic Statistics, Frankfort, Kentucky.
3. University of Louisville, State Data Center, 2002 Population Statistics, Louisville, Kentucky.

TABLE I-3 LIST OF CONTACT PERSONS FOR THE KENTUCKY 2002 EMISSIONS INVENTORY

Kentucky Division for Air Quality 803 Schenkel Lane Frankfort, Kentucky 40601	Lead agency contact, overall inventory coordination and supervision, point, area, biogenic, non-highway mobile, and on-highway mobile source emissions and data activity levels	John Gowins (502) 573-3382
Kentucky Division for Air Quality 803 Schenkel Lane Frankfort, Kentucky 40601	On-Highway mobile and area source emissions and data activity levels	Joe Forgacs (502) 573-3382

2.0 POINT SOURCES

2.1 INTRODUCTION AND SCOPE

This section documents the development of the 2002 point source emissions inventory for the Kentucky portion of the Huntington-Ashland 8-hour ozone nonattainment area, which includes Boyd County. For the purpose of this inventory, point sources are defined as stationary commercial or industrial operations that emit 10 tons or more per year of volatile organic compounds (VOC) or 100 tons or more of nitrogen oxides (NO_x) or carbon monoxide (CO). Due to the lower cut-off size for VOC sources, the majority of point sources in the nonattainment area have VOC emissions; therefore, most of this section is dedicated to these sources. This point source inventory consists of actual emissions for 2002, and includes sources in the ozone nonattainment county.

Emissions from point sources are presented using two emission rate formats: annual, tons per year (TYR) and daily, tons per summer day (TSD) rates. Although not specifically required, annual emission rates are provided in order to assist the review agency and the public in performing comparison checks against the existing TEMPO⁵ database. In addition, the annual emission rate identifies point sources impacting on the area.

The remainder of this chapter is divided into three parts. Section 2.2 describes the approach used in developing and compiling the point source listing for the ozone nonattainment area. Section 2.3 presents an overall summary of the point source VOC, NO_x, and CO emissions. Section 2.4 lists the references used in preparing this section.

2.2 METHODOLOGY AND APPROACH

This section describes the methodology and approach used in developing information for the 2002 point source emissions inventory. The purpose for including this section is to provide sufficient detail to the review agency and the public to assist them in determining the adequacy of this inventory based on the most recent guidance. In addition, specific elements of the methodology and approach are being described in order to minimize the need for later clarifications.

The development activities for the 2002 point source emissions inventory were initiated in the spring of 2004. The approach used in compiling the point source listing and emissions data was based on guidance issued by the U.S. Environmental Protection Agency.^{1,2}

As mentioned previously, the Kentucky Division for Air Quality (DAQ) was the agency responsible for development of the 2002 emissions inventory. Data collection activities began in the spring of 2004. Since Kentucky already had an existing emissions database of air pollution sources in the state, a thorough review of this database formed the starting point for overall inventory development. A brief description of the methodology and approach used to accomplish these tasks is presented in the following subsections.

2.2.1 Review of Existing Database

The review of the Division's TEMPO⁵ database allowed personnel to identify which sources in a given geographical area would need to be updated for this inventory effort. Also, a review of each source in the existing system provided information on whether specific sources had been updated during the normal yearly update or if they would need to be updated separately.

2.2.2 Source Survey

Point source emission surveys were mailed to appropriate point sources (*Please see related survey information provided in Appendix A*). The surveys were designed to have the facilities update specific information as outlined in EPA guidance. In some instances follow-up telephone calls were made to clarify responses given by sources.

2.2.3 Data Evaluation

The next step in developing the point source inventory was to evaluate the collected data. All information received from the sources was checked by emission inventory personnel to ensure that the responses were within reasonable levels.

Another aspect of data evaluation was the application of rule effectiveness for sources subject to regulatory emission limitations and a seasonal adjustment factor for facilities not operating on a uniform schedule. A factor of 80 percent was applied to the control device efficiency to adjust the resulting emission estimates to account for rule effectiveness. The rule effectiveness factor, pursuant to EPA Region 4 guidance,³ was applied to VOC, CO, and NO_x annual emissions totals and is therefore also reflected in daily emissions. Seasonal adjustment was applied only to daily emission totals.

2.2.4 Data Compilation

One of the final steps in developing the point source inventory involves submitting the data in an acceptable format. Division personnel routinely submit point source data to EPA's National Emissions Inventory (NEI) database.

2.2.5 Emission Calculations

Point source emissions were calculated using the following equations and variables. *Appendix A* contains point source emissions information utilized to calculate the point source emissions. Information requested by a source to be confidential in accordance with applicable laws is omitted from *Appendix A*.

1. Control Efficiency Adjusted for Rule Effectiveness

CTEFFN = $(1 - ((CTEFF)(RE)))$
CTEFFN = Actual Control Efficiency Adjusted for Rule Effectiveness
CTEFF = Actual Control Efficiency
RE = Rule Effectiveness = .80

2. Actual Process Rate for Typical Summer Day

CPROD
NPROD = $((FUELP) (ATHJ) / 100) / ((DWK) (WKYR) (.25))$
VPROD

CPROD, NPROD, and VPROD = Actual Process Rate for Typical Summer Day
for CO, NOx, and VOC, respectively

FUELP = (Actual) Annual Process Rate = Total Throughput
ATHJ = Summer Seasonal Activity
DWK = Number of Days Per Week Source is in Operation
WKYR = Number of Weeks Per Year Source is in Operation

3. Actual Emissions for Typical Summer Day

CATND
NATND = $(\underline{P}ROD) (EF) (CTEFFN)) / 2000$
VATND

CATND, NATND, and VATND = Typical Summer Day Emissions for CO, NOx,
and VOC, respectively
PROD = CPROD, NPROD, or VPROD as Appropriate

EF	=	Emission Factor
4. Annual Actual Emissions		
CATNY	=	
NATNY	=	((FUELP) (EF) (CTEFFN)) / 2000
VATNY	=	
CATNY, NATNY, and VATNY	=	Annual Emissions for CO, NOx, and VOC, respectively
FUELP	=	(Actual) Annual Process Rate = Annual Throughput
EF	=	Emission Factor

2.3 SUMMARY OF POINT SOURCE EMISSIONS

2.3.1 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND, WV-KY, AREA

This inventory includes VOC, CO, and NO_x point source emissions for Boyd County, Kentucky. County level point source emission totals are provided in Table 2-1. Additionally, Table 2-1 in *Appendix A* catalogues point source emissions by facility, by county, and provides a county total. These tables lists the facilities; the facility identification numbers; SIC codes⁴, and the 2002 annual emissions, adjusted for rule effectiveness, in tons per year; and the 2002 daily emissions with seasonal adjustments, in tons per summer day.

Table 2-1 Kentucky Portion of Huntington-Ashland Area 2002 Point Source Emissions

COUNTY	FACILITY NAME	Plant I.D. #	SIC Code	VOC tpy	VOC tpd	CO tpy	CO tpd	NO2 tpy	NO2 tpd
BOYD	MARATHON ASHLAND PET LLC	21-019-00004	2911	5869.81	17.20	29416.72	84.09	4497.92	13.12
BOYD	AK STEEL CORPORATION	21-019-00005	3312	6.69	0.01	32179.02	88.40	1164.33	3.19
BOYD	CALGON CARBON CORPORATION	21-019-00014	2819	39.97	0.10	37.95	0.10	154.29	0.45
BOYD	MARATHON ASHLAND PET LLC	21-019-00016	3731	135.97	0.37	2.60	0.01	3.10	0.02
BOYD	KY ELECTRIC STEEL CORPORATION	21-019-00020	3312	44.66	0.18	270.10	1.13	195.38	0.81
BOYD	AK STEEL CORPORATION	21-019-00027	3312	687.68	1.88	491.69	1.36	924.81	2.70
	KENTUCKY TOTAL	6784.78	19.74	62398.08	175.09	6939.83	20.29		

2.4 REFERENCES FOR SECTION 2

1. U.S. Environmental Protection Agency. *Emission Inventory Requirements for Post-1987 Ozone State Implementation Plans*. EPA-450/4-88-019. Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina. December 1988.
2. U.S. Environmental Protection Agency. *Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone, Volume I: General Guidance for Stationary Sources*. EPA-450/4-91-016. Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina. May 1991.
3. Telecon. U.S. Environmental Protection Agency, Region 4, Ms. Yasmin Yorker, February 4, 1992, concerning rule effectiveness.
4. Executive Office of the President, Office of Management and Budget. *Standard Industrial Classification Manual*. Order no. PB 87-100012. National Technical Information Service, Springfield, Virginia 22161. 1987.
5. Kentucky Division for Air Quality's TEMPO Point Source Database for the Year 2002.

2.4 REFERENCES FOR SECTION 2

1. U.S. Environmental Protection Agency. *Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations*. EPA-454/R-05-001. Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina. August 2005, which references *Emission Inventory Requirements for Post-1987 Ozone State Implementation Plans*. EPA-450/4-88-019. Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina. December 1988.
2. U.S. Environmental Protection Agency. *Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations*. EPA-454/R-05-001. Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina. August 2005, which references *Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone, Volume I: General Guidance for Stationary Sources*. EPA-450/4-91-016. Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina. May 1991.
3. Telecon. U.S. Environmental Protection Agency, Region 4, Ms. Yasmin Yorker, February 4, 1992, concerning rule effectiveness.
4. Executive Office of the President, Office of Management and Budget. *Standard Industrial Classification Manual*. Order no. PB 87-100012. National Technical Information Service, Springfield, Virginia 22161. 1987.
5. Kentucky Division for Air Quality's TEMPO Point Source Database for the Year 2002.

3.0 AREA SOURCES

3.1 INTRODUCTION AND SCOPE

This section documents the development of the 2002 area source emissions inventory for the Kentucky portion of the Huntington-Ashland 8-hour ozone nonattainment area (i.e., Boyd County). Area sources include non-traditional sources whose emissions are too small to be treated as stationary point sources individually. However, where several are located in a specific geographic location the combined emissions can be substantial. The emissions documented in this section are presented on an annual basis and for a typical summer day during the ozone season.

Including this introduction and scope, Section 3 is organized into four other subsections. Section 3.2 describes the approach taken to estimate emissions from each source category. Section 3.3 provides a summary of the area source emissions in the nonattainment area. Information explaining the calculations used to derive the area source emissions is discussed in Section 3.4. The references used in developing the area source portion of the inventory are located in Section 3.5.

3.2 METHODOLOGY AND APPROACH

3.2.1 Source Category Identification

The majority of area source categories considered in this inventory were identified from *Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone, Volume I.*¹ In addition, the U.S. EPA's Emission Inventory Improvement Program (EIIP) guidance²² was consulted and utilized where feasible. Emissions estimates for some area source categories are not included in the inventory. Agricultural and slash burning, snowmobiles, and orchard heaters are not commonplace in Kentucky and therefore do not warrant inclusion. Rationale for not including these categories is discussed later in this narrative.

3.2.2 Emission Estimation Approach

Generally, area source emissions are calculated using factors based on one of four criteria for the inventoried areas: (a) population (per-capita) see Table 3-1, (b) commodity consumption, (c) level-of-activity, or (d) employment. These calculations are further explained in Section 3.4.

Table 3-1
2002 Area Population Information

County	Population Apportionment Factor	Population
Boyd	1.00	49,603
TOTAL		49,603

3.3 SUMMARY OF AREA SOURCE EMISSIONS

Tables 3-1 to 3-32 provide the inventory results for each category of area source emissions. Table 3-33 contains the summary for each area source category in the county.

3.4 DISCUSSION OF THE AREA SOURCE CATEGORIES

Subsections 3.4.1 through 3.4.6 contain the descriptions for individual area source types and the methods used to calculate emissions for each. Calculations used to determine emissions are included within the narrative.

3.4.1. Gasoline Distribution.

Four categories are included under gasoline distribution: (a) Storage tank breathing losses; (b) Tank trucks in transit; (c) Tank truck unloading; and (d) Vehicle refueling. Vehicle refueling emissions are included in the Highway Mobile Source Inventory (Section 5) in the Mobile6.2 modeling runs.

Retail gasoline service station sales in 2002 for both the state and the county were obtained from the 2002 *Economic Census Retail Trade* publication for Kentucky.⁶ The 2002 taxable gasoline sales were available only for the state and were obtained from the Kentucky Revenue Cabinet's Motor Fuels Tax Section.⁷ The 2002 statewide gasoline sales were segregated to the county level using 2002 retail trade sales information. 2,191.84 million gallons of gasoline were sold in Kentucky in 2002. Emission factors were obtained from Tables 5.2-5 and 5.2-7 of AP-42, Volume I.^{2,22}

To calculate the emissions of VOC from any of the sources noted above, it was necessary to determine the total sales, in gallons, of gasoline in the nonattainment area. Only the *Census Retail Trade* publication⁶ lists county and state gasoline sales. Therefore, the percentage of county gasoline sales relative to the statewide gasoline in 2002 was calculated. State sales were obtained from Table

1 of the *Census Retail Trade* publication,⁶ and county sales obtained from Table 3 of that document. This percentage was applied to the total state taxable gasoline sales in 2002 to determine county gasoline sales in 2002. After the county gasoline sales in 2002 were determined, specific methods were used to calculate the emissions of VOC from each of the categories listed. The calculations and procedures described in EPA guidance,¹ were utilized. County-specific gasoline marketing data are shown in Table 3-2.

**Table 3-2
2002 Gasoline Marketing Data (1000 Gallons)**

County	Gasoline Sales
Boyd	40,967
TOTAL	40,967

3.4.1.1 Storage Tank Breathing Losses

County gasoline sales were multiplied by the emission factor found in Table 5.2-7 of AP-42, Volume I.² Tons of VOC emissions per year were converted to tons per typical summer day in accordance with Section 5.9 of reference 1. The seasonal adjustment factor (SAF) was determined by adding the total gasoline sales for June, July, and August of 2002--then dividing that total by the total state gasoline sales for 2002. This dividend was then divided by 0.25 to determine the percentage of activity which occurred during those months, since it was noted that the activity level for that quarter was higher than the other quarters. The seasonal adjustment factor applied for the gasoline marketing was 1.079. The activity days per week were considered to be 7. The formula for this calculation is as follows:

$$\left(\frac{(\text{June} + \text{July} + \text{August Monthly Gasoline Gallon Totals}) / (\text{Year-End Gasoline Gallon Total})}{0.25} \right)$$

The calculations used to determine emissions from storage tank breathing losses are as follows.

$$TPY \left(\frac{\text{County Sales}}{\text{(gallons)}} \times \frac{1.0 \text{ lbs.}}{1000 \text{ (gal)}} \right) \times \frac{1 \text{ ton}}{(2000 \text{ lbs})}$$

$$TSD = (TPY \times SAF) / (7 \times 52)$$

The emissions, by county, produced by storage tank breathing losses are shown in Table 3-3.

3.4.1.2 Tank Trucks in Transit

Since some gasoline is delivered to bulk plants rather than delivered directly to service stations from bulk terminals, the amount of gasoline transferred in any area may exceed the total gasoline consumption, due to the additional trips involved. Reference 1 makes the following statements relating to this matter:

Table 3-3
Summary of Emissions From
Gasoline Breathing Losses

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	20.48	0.06
TOTAL	20.48	0.06

"A nationwide average of roughly 25 percent of all gasoline consumed goes through bulk plants. Hence, gasoline distribution in an area could be multiplied by 1.25 to estimate gasoline transported." and,

"Emissions from tank trucks in transit, however, will generally be minimal, in most areas. Hence, a great deal of effort is not warranted in making this adjustment."

Based on these statements, and in the absence of specific bulk plant throughput information, 2002 county gasoline sales were multiplied by 1.25 to obtain the total gasoline transported in 2002. Per EPA EIIP guidance²², the midpoints of the typical AP-42 Table 5.2-5 emission factors for tank trucks or bulk tanks loaded with product and return with vapor were determined, combined, and applied to gasoline transported in each county to determine the emissions of VOC per year. The yearly

emissions were then converted to tons per typical summer day. The seasonal adjustment factor used for tank breathing losses was 1.079. The activity days per week were considered 6. The calculation used to figure emissions from tank trucks in transit are as follows.

$$TPY \left(\frac{(County\ Gas\ x\ 1.25) x\ .060\ lbs.}{Sales\ 1000gals.)} \right) x \frac{1\ ton}{2000\ lbs}$$

$$TSD = (TPY x SAF) / (6 x 52)$$

The emissions, by county, produced by tank trucks in transit are provided in Table 3-4.

**Table 3-4
Summary of Emissions From
Tank Trucks In Transit**

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	1.54	0.01
TOTAL	1.54	0.01

3.4.1.3. Vehicle Refueling

The emissions for vehicle refueling have been calculated by Mobile6.2 and are included in the Mobile Source Emissions Inventory in Section 5, but are not listed separately.

3.4.1.4 Tank Truck Unloading

To calculate the emissions of VOC produced by tank truck unloading, the division performed a review of gasoline stations located in the ozone nonattainment area. The following assumptions were made.

For the ozone nonattainment area (i.e., Boyd County) 90% of the gasoline throughput was subject to submerged filling and the remaining 10% of the gasoline throughput was subject to splash filling techniques.

Based on these assumptions, the fraction of gallons of gasoline throughput using each fill method was multiplied by the appropriate emission factors from Table 5.2-7 of AP-42, Volume I² to

derive emissions. Rule penetration was implicitly applied by allocating the gasoline throughput for each fill method. The yearly emissions were converted to tons per typical summer day in accordance with Section 5.9 of Reference 1. The seasonal adjustment factor of 1.079 for gasoline marketing was applied. The activity days per week for tank truck unloading was 6.¹ The calculations used to determine emissions from this category are as follows.

Submerged Fill

$$TPY = \left(\frac{\text{Apportioned}}{\text{County Sales}} \times .90 \right) \left(\frac{7.3 \text{ lbs.}}{1000 \text{ gals}} \right) \times \left(\frac{1 \text{ ton}}{2000 \text{ lbs}} \right)$$

$$TSD = (TPY \times SAF) / (6 \times 52)$$

Splash Fill

$$TPY = \left(\frac{\text{Apportioned}}{\text{County Sales}} \times .10 \right) \left(\frac{11.5 \text{ lbs.}}{1000 \text{ gals}} \right) \times \left(\frac{1 \text{ ton}}{2000 \text{ lbs}} \right)$$

$$TSD = (TPY \times SAF) / (6 \times 52)$$

Total Tank Truck Unloading Annual Emissions = Submerged Fill Annual + Splash Fill Annual

Total Tank Truck Unloading Summer Daily Emissions = Submerged Fill Daily + Splash Fill Daily

The emissions, by county, produced by tank truck unloading are shown in Table 3-5.

Table 3-5
Summary of Emissions From
Tank Truck Unloading

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	158.14	0.55
TOTAL	158.14	0.55

3.4.1.5 Aircraft Refueling

There are no airports in Boyd County, therefore there are no emissions for aircraft refueling.

3.4.1.6 Petroleum Vessel Loading & Unloading

This category is included in the Point Source Inventory, Section 2.

3.4.2 Stationary Source Solvent Evaporation

The following eight subcategories are included in this area source category. All of these emit Volatile Organic Compounds (VOCs) because of their solvent usage. They are:

- (1) Dry Cleaning;
- (2) Surface Cleaning;
- (3) Surface Coating;
- (4) Graphic Arts;
- (5) Cutback Asphalt Paving;
- (6) Pesticide Applications; and,
- (7) Commercial/Consumer Solvent Use.

Each of the previous-mentioned subcategories is discussed individually in the following subsections.

3.4.2.1 Dry Cleaning

Dry cleaning operations vary in size, type of service, and type of solvent used. Industrial, commercial, and self-service facilities clean not only personal clothing, but also uniforms, linens, drapes, and other fabric materials. Per previous EPA guidance²³, since emissions for coin operated and commercial/industrial dry cleaning are considered to be nonreactive (i.e., perchloroethylene emissions) only other solvent emissions are reflected in the VOC emissions provided for dry cleaning

Population statistics for the counties examined were obtained from information provided by the Kentucky State Data Center^{3,4} and are found in Table 3-1.

Annual tons of VOC were calculated by multiplying the per capita emission factor by the county population. Rule penetration is implicitly applied by using the distinct per capita emission factors for each type of dry cleaning facility.

Emissions per typical summer day for this area source category were calculated using federal

guidance.¹ The methodology involves multiplying the following per capita VOC emission factors by an area's population to estimate the dry cleaning emissions:

Mineral Spirits & other solvent facilities: 1.1 lb/capita/yr

The calculated annual tons of VOC emissions were then divided by the product of the number of activity days per week and the number of weeks in a year. For dry cleaning, no seasonal adjustment factor was applied since activity was considered uniform year round and the activity days per week was 5.¹

The calculations for this category are as follows:

$$TPY = \frac{\text{Other Solvents}}{(EF \times \text{population})} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} \quad TSD = TPY / (5 \times 52)$$

Emissions from dry cleaning activities are provided for individual counties in Table 3-6.

Table 3-6
Summary of Emissions From Dry Cleaning

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	27.28	0.10
TOTAL	27.28	0.10

3.4.2.2 Surface Cleaning

Surface cleaning or degreasing is a physical method of removing grease, wax, or dirt from metal, glass, and fabric surfaces by exposing the material to an organic solvent. Degreasing activity is one of the many production steps associated with industrial categories involving metal furniture, primary metals, fabricated products, machinery, electric equipment, and instrumentation. In addition, there are many miscellaneous degreasing operations associated with auto repair shops, gasoline stations, and maintenance shops. There are three types of degreasers: small cold cleaners, open top vapor degreasers, and conveyorized vapor degreasers.

Surface operations, which include cold cleaning, manufacturing, and vapor in-line cleaning and others use organic solvents as room temperature liquids. Uses include wiping, spraying, or dipping parts in the solvent. In open top vapor degreasing, cleaning takes place by exposing the part to solvent vapor. Conveyorized vapor degreasing entails the same activity as open top degreasing

except that the parts to be cleaned continuously move in and out of the degreaser.

Federal guidance¹ provided the methodology the division used for calculating VOC emissions for this area source category. It involves multiplying the following per capita VOC emission factors by an area's population to estimate total surface cleaning emissions. Per EPA guidance²⁴, to avoid double counting, point source degreasing emissions were subtracted from the area source surface cleaning VOC emissions as appropriate.

Surface Cleaning Total: 4.3 lb/capita/yr

Cold Cleaning

Auto Repair: 2.5 lb/capita/yr

Manufacturing: 1.1 lb/capita/yr

Vapor & In-Line Cleaning

Electronics & Electrical : 0.21 lb/capita/yr

Other: 0.49 lb/capita/yr

Emissions per typical summer day for this area source category were calculated using section 5.9 of the federal guidance document.¹ The calculated annual tons of VOC divided by the product of the number of activity days per week and the number of weeks in a year. For surface cleaning, as found in Table 5.8-1,¹ no seasonal adjustment factor was applied since activity was considered uniform year round and the activity days per week was 6¹.

Emissions were calculated using the following method.

$$TPY = ((EF \times \text{population}) \times \frac{1 \text{ ton}}{2000 \text{ lbs}}) * .77^{25} \quad --- \quad TSD = TPY / (6 \times 52)$$

+

$$TPY = ((EF \times \text{population}) \times \frac{1 \text{ ton}}{2000 \text{ lbs}}) * .77^{25} \quad --- \quad TSD = TPY / (6 \times 52)$$

+

$$((EF \times \text{population}) \times \frac{1 \text{ ton}}{2000 \text{ lbs}}) * .77^{25} \quad --- \quad TSD = TPY / (6 \times 52)$$

Area Source Surface Cleaning VOC Emissions (TSD) = TSD - Pt. Source Surface Cleaning VOC Emissions²⁴

Per EPA guidance²⁵, perchloroethylene emissions have been removed from the surface cleaning emissions by reducing the emissions by 23 percent. Surface cleaning emissions are provided for the county in Table 3-7. Population information is provided in Table 3-1 and perchloroethylene removal and double counting information for surface cleaning is provided in *Appendix B*.

Table 3-7
Summary of Emissions* From
Surface Cleaning Operations

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	82.12	0.26
TOTAL	82.12	0.26

*Perchloroethylene emissions have been removed from the surface cleaning emissions by reducing the emissions by 23 percent per EPA's May1993 Helms guidance memorandum²⁵.

3.4.2.3 Surface Coating

Surface coatings include paints, enamels, varnishes, lacquers and other product finishes. All of these products include either a water-based or solvent-based liquid carrier, which generally evaporates in the drying or curing process.

VOC emissions result from the evaporation of the paint solvent and any additional solvent used to thin the paint. Substantial emissions also result from the use of solvents in cleaning the surface prior to painting and in cleaning painting equipment after use.

Surface Coating operations are separated into two groups, industrial and nonindustrial. Industrial surface coating operations for such products as appliances, automobiles, paper, fabric and cans are included in the point source inventory. Non-industrial surface coating includes refinishing of automobiles, architectural coating, and traffic paints and are inventoried as area sources.

3.4.2.3.1 Architectural Surface Coating

Architectural surface coatings, often called "trade paints," are used primarily by homeowners and painting contractors to coat the interior/exterior of houses and buildings and on the surfaces of

other structures such as pavements, curbs, or signs. Coating materials are applied to surfaces by spray, brush, roller, and dry at ambient conditions. Architectural coatings differ from industrial coatings, which are applied to manufactured products and are usually oven cured. Painting contractors and homeowners are the major users of architectural coatings.

Federal guidance¹ provided the methodology the division used for calculating VOC emissions for this area source category. This methodology involves multiplying the following per capita VOC emission factor by an area's population to estimate the architectural surface coating emissions:

Architectural Surface Coating: 4.6 lb/capita/yr (Represents reactive VOC). Population statistics for all areas examined were obtained from the University of Louisville, Urban Data Center.^{3,4} Solvent use, which accounts for 25 to 40 percent of all solvent loss associated with architectural surface coating, is included in this per capita factor. Solvents used in architectural surface coatings or thinning and cleanup contain almost 100 percent reactive compounds.

Emissions per typical summer day for this area source category were calculated using Section 5.9 of Reference 1. The calculated annual tons of VOC were multiplied by an appropriate seasonal adjustment factor and then divided by the product of the number of activity days per week and the number of weeks in a year. For architectural surface coating the seasonal adjustment factor was 1.3 and the activity days per week was 7.¹

The following calculation was used to estimate emissions from architectural surface coating.

$$TPY = (EF \times Population) \times \frac{1 \text{ ton}}{(2000 \text{ lbs})}$$

$$TSD = (TPY \times SAF) / (7 \times 52)$$

Architectural surface coating emissions are provided in Table 3-8.

Table 3-8
Summary of Emissions From
Architectural Surface Coating

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	114.09	0.41
TOTAL	114.09	0.41

3.4.2.3.2 Automobile Refinishing

Automobile refinishing is the repainting of worn or damaged automobiles, light duty trucks, and other vehicles. Surface coating during manufacturing is not considered refinishing. In automobile refinishing, lacquers and enamels are usually sprayed in paint booths. Since vehicles contain heat sensitive plastics and rubber, the solvent borne coatings are used in low temperature ovens. Paint booths may be equipped with paint arresters or water curtains to handle overspray. Solvents used in auto body refinishing will consist almost entirely of reactive VOC.

Federal guidance¹ provided the methodology the division used for calculating VOC emissions for this area source category. This methodology involves multiplying the following VOC per capita emission factor by an area's population to estimate auto body emissions:

Auto Body Refinishing: 2.3 lb/capita/yr

According to federal guidance, because auto body refinishing may be generally expected to relate to human activity, such a population based approach will provide reasonable emission estimates for this area source category. Population statistics for all areas examined were obtained from state references.^{3,4}

Emissions per typical summer day for this area source category were calculated using federal guidance¹. The calculated annual tons of VOC divided by the product of the number of activity days per week and by the number of weeks in a year. For auto body refinishing no seasonal adjustment factor was applied since the activity was considered uniform year round. The activity days per week was 5.

The calculations used to figure yearly and daily VOC emissions for this category are as follows.

$$TPY = (EF \times \text{population}) \times \frac{1 \text{ ton}}{(2000 \text{ lbs})}$$

$$TPD = TPY / (5 \times 52)$$

Auto body refinishing emissions are provided for individual counties in Table 3-9. Population information for individual areas is provided in Table 3-1.

Table 3-9
Summary of Emissions From
Automobile Refinishing

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	57.04	0.22
TOTAL	57.04	0.22

3.4.2.3.3 Traffic Markings

Traffic paints are used to mark pavement. These markings include dividing lines for traffic lanes, parking space markings, crosswalks, arrows, and other markings. These markings are usually applied by state or local highway maintenance crews or by contractors during road construction. VOC emissions result from the evaporation of organic solvents during and shortly after the application of the marking paint. Traffic paint emissions are included in the area source inventory the emissions are not from any specific plant, but instead emanate from the roadways and surfaces where markings are applied.

Federal guidance¹ provided the methodology the division used for calculating VOC emissions for this area source category. This methodology involves multiplying the following VOC per capita emission factor by an area's population to estimate traffic marking emissions.

Traffic marking: 0.5 lb/capita/yr

According to federal guidance, because traffic marking emissions may be generally expected to relate to human activity, such a population based approach will provide reasonable emission

estimates for this area source category. The activity level was considered 5 days per week. No seasonal adjustment factor was applied for this category since none was provided in Volume I guidance.

The calculations used to derive yearly and daily VOC emissions for this category are as follows.

$$TPY = (EF \times \text{population}) \times \frac{1 \text{ ton}}{(2000 \text{ lbs})}$$

$$TPD = TPY / (5 \times 52)$$

Traffic marking emissions are provided in Table 3-10. Population statistics for individual areas are provided in Table 3-1.

Table 3-10
Summary of Emissions From
Traffic Markings

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	12.40	0.05
TOTAL	12.40	0.05

3.4.2.3.4 Other Small Industrial Surface Coating

Industrial surface coating includes the coating, during manufacture, of magnet wire, automobiles, cans, metal coils, paper, fabric, metal and wood furniture, and miscellaneous products. According to federal guidance,¹ to the maximum extent possible, small industrial surface coating operations should be treated as point sources. Therefore, the division will include small industrial surface coating emissions in the point source emissions inventory.

3.4.2.4 Graphic Arts

The graphic arts or printing industry consists of approximately 60,000 facilities (SIC 27) nationwide. About half of these establishments are in-house printing services in nonprinting industries. Printing newspapers, books, magazines, fabrics, wall coverings, and other materials, is considered a graphic arts application. Five types of printing are used in the industry: letterpress,

flexography, lithography, (roto)gravure, and screen process printing.

Solvent use is an integral part of the process and is the primary source of VOC emissions. Associated cleanup operations also require the use of solvents, thereby contributing to VOC emissions for the industry. All solvents used in the graphic arts industry are considered reactive.

Federal guidance¹ provided the methodology the division used for calculating VOC emissions for this area source category. This methodology involves multiplying the following per capita VOC emission factor by an area's population to estimate VOC emissions from graphic art facilities, which emit less than 100 tons:

Graphic Arts: 1.3 lb/capita/yr

In accordance with federal guidance,¹ any emissions associated with point source graphic arts facilities, which emit under 100 tons per year, should be subtracted from the area source inventory. Graphic arts emissions from point sources greater than or equal to 100 tons per year should not be subtracted, since they have already been excluded from the area source graphic arts emission factor of 1.3 lb/person/yr.

Population statistics for all areas examined were obtained from state references.^{3,4}

Emissions per typical summer day for this area source category were calculated using federal guidance.¹ The calculated annual tons of VOC were then divided by the product of the number of activity days per week and the number of weeks in a year. For graphic arts no seasonal adjustment factor was applied since the activity was considered uniform year round and the activity days per week was 5.¹ Calculations for this category are as follows:

$$TPY = \frac{(EF \times Population) - Point\ Source\ Emissions}{(2000\ lbs)}$$

$$TPD = TPY / (5 \times 52)$$

Graphic arts emissions are provided in Table 3-11. Population information is provided in Table 3-1.

Table 3-11
Summary of Emissions From
Graphic Arts

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	32.24	0.12
TOTAL	32.24	0.12

3.4.2.5 Cutback Asphalt Paving

Cutback asphalt is a type of liquefied road surface that is prepared by blending or "cutting back" asphalt cement with various kinds of petroleum distillates. Cutback asphalt is used as a pavement sealant, tack coat, and as a bonding agent between layers of paving material. VOCs are emitted as the cutback asphalt cures and the petroleum distillates evaporate.

According to federal guidance,¹ because paving operations may be generally expected to relate to human activity, a population based approach will provide reasonable emission estimates for this area source category. The emission factor used for this category is as follows.

Cutback Asphalt Paving: 0.37 lb/capita/yr

The activity level was considered to be 5 days per week. The calculations for estimating emissions from this category are as follows.

$$TPY = (EF \times \text{population}) \times \frac{1 \text{ ton}}{(2000 \text{ lbs})}$$

$$TPD = TPY / (5 \times 52)$$

Cutback asphalt emissions are provided in Table 3-12. Population for individual counties is found in Table 3-1.

Table 3-12
Summary of Emissions From
Cutback Asphalt Paving

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	9.18	0.04
TOTAL	9.18	0.04

3.4.2.6 Emulsified Asphalt

Emissions from emulsified asphalts were not calculated. Any emissions from this category would have been negligible since emulsified asphalt is water based.

3.4.2.7 Pesticide Application

Pesticides broadly include any substances used to kill or retard the growth of insects, rodents, fungi, weeds, or microorganisms. Pesticides fall into three basic categories: synthetics, nonsynthetics (petroleum products), and inorganics. Formulations are commonly made by combining synthetic materials with various petroleum products. The synthetic pest killing compounds in such formulation are labeled as "active" ingredients, and the petroleum product solvents acting as carriers or diluents for the active ingredients are labeled "inert." Neither of these toxicologic designations, active or inert, should be interpreted as indicators of photochemical reactivity; these designations refer only to their toxicological action.

The federal procedures document¹ described an emissions estimation process which requires the quantity and types of pesticides used in a study area. Contacts with both the Kentucky Department of Agriculture⁸ and the University of Kentucky^{9,10} revealed that such data is not available.

The Kentucky Division for Air Quality requested the use of an alternative method on September 30, 1989.¹¹ Since the largest single source of pesticide use is through agricultural application, the alternative method links pesticide application to harvested acreage. Utilizing the alternative method, VOC emissions were determined by multiplying an emission rate of two pounds of VOC per harvested acre by an area's 2002 harvested acreage.²¹ The product was then multiplied by a factor of 0.9 to approximate the amount that evaporated and can be considered photochemically reactive VOC. This alternative method was approved by the U.S. EPA, Region 4 on November 7, 1989.¹¹ The yearly emissions were then converted to tons emitted per typical summer day in accordance with Section 5.9 of reference 1. The seasonal adjustment factor was 1.3, and the activity days per week was 6. The calculations for estimating emissions for this category are as follows.

$$TPY = \frac{((\text{Harvested} \times \text{Emission}) \times 0.9)}{\text{Acres Factor(lbs)}} \times \frac{1 \text{ ton}}{(2000 \text{ lbs})}$$

$$TPD = (TPY \times SAF) / (6 \times 52)$$

The emissions, by county, produced by pesticide application are shown in Table 3-13. 2000 harvested acre information²¹ used to calculate emissions for this category are found in Table 3-14.

**Table 3-13
Summary of Emissions From
Pesticide Application**

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	3.50	0.01
TOTAL	3.50	0.01

**Table 3-14
2002 Harvested Acres**

County	Harvested Acres
Boyd	3,886
TOTAL	3,886

3.4.2.8 Commercial/Consumer Solvent Use

Many commercial/consumer products in common use contain VOCs. Some examples are household and automobile cleaners and polishes. These products have varying VOC content and the quantities used are difficult to estimate; therefore, the resulting VOC emissions are considered to be an area source.

EPA guidance^{22, 1} provided the methodology the Division used for calculating the VOC emissions for this area source category. The EPA EIIP²² per capita emission factor for commercial/consumer solvent use of 7.84 lb/capita/yr includes emissions from household products (cleaners, laundry detergents); personal care products (e.g., toiletries, aerosol products); automotive aftermarket products (e.g., rubbing compounds, windshield washing fluids, polishes and waxes); non-industrial adhesives and sealants; pesticide products (home or business); and miscellaneous products.

Population statistics for all areas examined were obtained from state references.^{3,4} Emissions per typical summer day for this area source category were calculated using a federal guidance document.¹ The calculated annual tons of VOC was divided by the product of the number of activity days per week and the number of weeks in a year. For commercial/consumer solvent use, no seasonal adjustment factor was applied since activity was considered uniform year round and the activity days per week were 7. The calculations for estimating emissions from this category are as follows.

$$TPY = (EF \times Population) \times \frac{1 \text{ ton}}{(2000 \text{ lbs})}$$

$$TPD = TPY / (7 \times 52)$$

Commercial/Consumer solvent use emissions are provided for individual counties in Table 3-15. Population information for individual areas is provided in Table 3-1.

Table 3-15
Summary of Emissions From
Consumer Solvent Usage

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	194.44	0.53
TOTAL	194.44	0.53

3.4.3 Waste Management Practices

The handling and management of solid and liquid waste depends on such factors as the type of waste generated and the form and composition of the waste. The following methods of waste disposal were examined in this inventory:

- (1) Publicly Owned Treatment Works (POTW);
- (2) Industrial Waste Water Treatment;
- (3) Hazardous Waste (TSDFs);
- (4) Municipal Landfills; and
- (5) Solid Waste Incineration -- On-site Incineration and Open Burning

3.4.3.1 Publicly Owned Treatment Works

Federal guidance indicates that research has shown that approximately 85% of all volatile pollutants discharged to unacclimated wastewater treatment systems are stripped to the ambient air. Additionally, the concentration of volatile organic compounds found in POTW influent has been shown to be directly proportional to the industrial contribution to a POTW.

Federal guidance¹ provided the methodology the division used for calculating the VOC emissions for this area source category. The methodology involves multiplying the following emission factor by the number of gallons of industrial wastewater discharged to a POTW:

1.1×10^{-4} (.000110 lbs. of VOC emitted per gallon of industrial wastewater discharged to a POTW.

The amount of industrial wastewater discharged to a POTW was obtained from the Kentucky Division of Water.¹²

Emissions per typical summer day for this area source category were calculated using federal guidance.¹ The calculated annual tons of VOC was multiplied by an appropriate seasonal adjustment factor and then divided by the product of the number of activity days per week and the number of weeks in a year. For POTW a seasonal adjustment factor of 1.4. was applied and the number of activity days per week were 7.

$$TPY = \frac{(\text{Industrial Wastewater} \times EF)}{\text{Flow (gallons)}} \times \frac{1 \text{ ton}}{(2000 \text{ lbs})}$$

$$TPD = (TPY \times SAF) / (7 \times 52)$$

POTW VOC emissions are provided for Boyd County in Table 3-16. Additionally, total industrial wastewater discharge information to POTW for the nonattainment area is provided in Table 3-17.

Table 3-16
Summary of Emissions From
POTW

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	7.23	0.03
TOTAL	7.23	0.03

Table 3-17
Industrial Discharge Into POTW

County	POTW (Million Gallons Per Year)
Boyd	0.36000
TOTAL	0.36000

3.4.3.2 Industrial Wastewater

The first step in estimating emissions from this category was to determine what facilities should be treated as point sources. Radian provided guidance¹⁷ on how to determine what sources should be treated as point sources and what sources could be inventoried as area sources. The County Business Patterns⁵ was used to determine the number of facilities within a given SIC code and the number of employees by facility within that code. In order to determine the number of employees for a particular SIC code a conversion from the NAICS code to the SIC code was completed, since the county business patterns now uses the NAICS code. However, a review of the data indicates that there are no facilities in Boyd County with the appropriate NAICS codes. Therefore no emissions are included for this category.

3.4.3.3 Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)

This is a relatively new inventory category. In view of the confusion, and resultant frustration, regarding emission estimates from TSDFs, the Division for Air Quality considered the allowance of one ton of VOC per year per facility in order to report *any* figures for the inventory. However, such a blind apportionment of emissions undermined the intent of the inventory.

Assistance had been requested from Radian, in performing emission calculations for this category. However, in a letter received from Steve McCary, U.S. EPA, Region 4 on November 12, 1992, sufficient guidance is not available to inventory emissions from TSDFs at this time. It is expected that most emissions from these sources will be reported in the point source inventory.

3.4.3.4 Municipal Landfills

VOC emissions are produced from municipal solid waste landfills by three mechanisms:

volatilization, chemical reaction, and biological decomposition of liquid and solid compounds into other chemical species. Based on EPA guidance,¹ since Kentucky has an average precipitation level over 23 inches, an emission factor of 13.6 tons of VOC per million tons of refuse in-place plus an additional factor of 2.6 tons per year. No seasonal adjustment was applied since this activity is considered uniform according to *Volume I* guidance.

The amount of refuse in-place at facilities located in the nonattainment area in Kentucky was obtained in a municipal solid waste survey developed by the Kentucky Division for Air Quality.¹⁶

The calculations used to estimate emissions from this category are as follows.

$$TPY = \frac{\text{tons of municipal solid waste}}{1,000,000 \text{ tons of waste}} \times (13.6 \text{ tons VOC}) \times (2.6)$$

$$TSD = TPY / (7 \times 52)$$

A summary of emissions for this category may be found in Table 3-18. The tons of solid waste impounded are found in Table 3-19.

**Table 3-18
Summary of Emissions From
Municipal Landfills**

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	30.60	0.08
TOTAL	30.60	0.08

**Table 3-19
Tons of Solid Waste
In Municipal Landfills**

County	Landfill Waste (tons)
Boyd	865,416
TOTAL	865,416

3.4.3.5 Solid Waste Incineration

Solid waste may consist of any discarded solid materials from industrial, commercial, or residential sources. The materials may be combustible or non-combustible and are often burned to

reduce bulk, unless direct burial is either available or practical.

The solid waste disposal category includes on-site refuse disposal by residential, industrial, and commercial/institutional sources. On-site incineration is confined burning of waste leaves, landscape refuse, or other refuse or rubbish. Open burning is the unconfined burning of solid waste material.

3.4.3.5.1 On-Site Incineration

A federal guidance document¹ provides waste generation factors to estimate the tons of solid waste burned in on-site incineration. The amount of waste incinerated by residential, commercial/institutional and industrial sources was multiplied by the appropriate VOC, NO_x, and CO emission factors obtained from a federal reference document.²

The waste generation factors for on-site incineration appropriate for Region 4 are: 4 tons per 1000 population per year for residential sources; 23 tons per 1000 population per year for commercial/institutional sources; and 395 tons per 1000 manufacturing employees per year for industrial sources. The emission factors applied for on-site incineration are: 1.7 for VOC, 60 for CO, and 11 for NO_x. The emission factors are in pounds of pollutant per ton of solid waste incinerated.

Population statistics and manufacturing employment information for all areas examined for on-site incineration were obtained from state references.^{4,5} Emissions per typical summer day for this area source category were calculated using a federal guidance document.¹ The calculated annual tons of VOC were divided by the product of the number of activity days per week and the number of weeks in a year. For on-site incineration, no seasonal adjustment factor was applied since activity was considered uniform year round and activity days per week were 7. Calculations for estimating emissions from this category are as follows.

Residential

$$TPY = \frac{(4 \text{ Tons county}) \times EF}{(\frac{\text{of waste}}{1000 pop.} \times \frac{\text{pop.}}{(lbs)}) (\frac{1 \text{ ton}}{2000 lbs})}$$

$$TSD = TPY / (7 \times 52)$$

Commercial/Institutional

$$TPY = \frac{(23 \text{ Tons county}) \times EF \times \frac{1 \text{ ton}}{2000 \text{ lbs}}}{\frac{(of waste \times pop. \text{ lbs})}{1000 pop.}}$$

$$TSD = TPY / (7 \times 52)$$

Industrial

$$TPY = \frac{(395 \text{ tons} \times \# \text{ employees}) \times EF \times \frac{1 \text{ ton}}{2000 \text{ lbs}}}{\frac{(1000 mfg \text{ in mfg SICs}) \times (20-39 \text{ employees})}{employees}}$$

$$TSD = TPY / (7 \times 52)$$

On-site incineration emissions are provided for the ozone nonattainment area in Table 3-20.

Manufacturing employee information for individual areas is provided in Table 3-21.

Table 3-20
Summary of Emissions From
On-Site Incineration

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)	Annual CO Emissions (tons/year)	Daily CO Emissions (tons/day)	Annual NOx Emissions (tons/year)	Daily NOx Emissions (tons/day)
Boyd	2.32	0.01	81.90	0.23	15.02	0.04
TOTAL	2.32	0.01	81.90	0.23	15.02	0.04

Table 3-21
Manufacturing Employee Population

County	Manufacturing Employment (Employees)
Boyd	3,521
TOTAL	3,521

3.4.3.5.2 Open Burning

A federal guidance document¹ provides waste generation factors to estimate the tons of solid waste burned in open burning. The amount of waste burned by residential, commercial/institutional, and industrial sources was multiplied by the appropriate VOC, NO_x, and CO emission factors obtained from a federal reference document.² The waste generation factors for open burning appropriate for Region 4 are: 450 tons per 1000 rural population per year for residential sources; 24 tons per 1000 rural population per year for commercial/institutional sources; and 160 tons per 1000 manufacturing employees per year for industrial sources. The emission factors applied for open burning are: 30 for VOC, 85 for CO, and 6 for NO_x. The emission factors are in units of pounds of pollutant per ton of solid non-agricultural waste burned. For an example of how the above information is utilized for this area source category, please see 3.4.3.5.1 regarding on-site incineration.

Rural population statistics and manufacturing employment information for all areas examined for open burning were obtained from state references.^{3,4}

In January 1998, Kentucky adopted revisions to the open burning regulation to prohibit most types of open burning in moderate ozone nonattainment areas within Kentucky during the period of May – September when ozone is most likely. The emission reduction credit taken for this control measure is calculated as 80%. A copy of the regulation outlining this prohibition is included in *Appendix F*.

Emissions per typical summer day for this area source category were calculated using a federal guidance document.¹ The calculated annual tons of VOC was then divided by the product of the number of activity days per week and the number of weeks in a year. For open burning, no seasonal adjustment factor was applied since activity was considered uniform year round and activity days per week was 7. Emissions for this category were calculated as follows.

Residential

$$TPY = \frac{(450 \text{ Tons county}) \times EF}{(\frac{\text{of waste}}{1000 \text{ rural population}} \times \text{pop.})} \times \frac{1 \text{ ton}}{(2000 \text{ lbs})}$$

$$TSD = TPY / (7 \times 52)$$

Commercial/Institutional

$$TPY = \frac{(24 \text{ Tons county}) \times EF \times \frac{1 \text{ ton}}{(2000 \text{ lbs})}}{\left(\frac{\text{of waste} \times \text{pop.}}{1000 \text{ rural population}} \right)}$$

$$TSD = TPY / (7 \times 52)$$

Industrial

$$TPY = \frac{(160 \text{ tons} \times \# \text{ employees}) \times EF \times \frac{1 \text{ ton}}{(2000 \text{ lbs})}}{\left(\frac{1000 \text{ mfg in mfg SICs}}{\text{employees 20-39}} \right)}$$

$$TSD = TPY / (7 \times 52)$$

Open burning emissions are provided for Boyd County in Table 3-22. Manufacturing employee information is provided in Table 3-21 and rural population information is provided in Table 3-23.

Table 3-22
Summary of Emissions From
Open Burning of Solid Waste

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)	Annual CO Emissions (tons/year)	Daily CO Emissions (tons/day)	Annual NOx Emissions (tons/year)	Daily NOx Emissions (tons/day)
Boyd	98.94	0.27	280.33	0.77	19.79	0.05
TOTAL	98.94	0.27	280.33	0.77	19.79	0.05

Table 3-23
2002 Rural Population

County	Rural Population
Boyd	12,728
TOTAL	12,728

3.4.4 Small Stationary Source Fossil Fuel Use

The category includes small boilers, furnaces, heaters, and other heating units too small to be considered point sources. A federal guidance document¹ indicates that it may not be worthwhile for an agency to perform the detailed procedures to calculate emissions for this entire fuel combustion category if: (1) its primary concern is updating the VOC inventory and (2) if an existing inventory already includes combustion. Since the division meets the aforementioned conditions it did not calculate emissions for this area source category.

3.4.5 Bioprocess Emissions Sources

Bioprocess emissions sources include those sources whose emissions result from biological processes (e.g. fermentation). Source categories include bakeries, breweries, distilleries, wineries, and silage storage.

3.4.5.1 Bakeries

The methodology used to estimate emissions from bakeries was prepared by Radian Corporation.¹⁸ A review of *County Business Patterns*,⁵ provided the number of bakeries listed under retail bakeries (SIC 546) and larger manufacturing bakeries (SIC 2051). For the purposes of this inventory, all bakeries in the county were considered area sources and their emissions were calculated using Radian's guidance. A factor of .155 tons VOC/yr/1000 population was applied to county populations. This activity was considered uniform year round and activity days per week were 6.¹

The calculations used to determine source emissions from this category are as follows.

$$TPY = \frac{\text{Area Source Emissions}}{(1000 \text{ pop.})} + \frac{\text{Point Source Emissions}}{((1000 \text{ lbs}) \times (2000 \text{ lbs}))}$$
$$\text{Area Source Emissions} = \frac{.155 \text{ tons} \times \text{population}}{(1000 \text{ pop.})}$$
$$\text{Point Source Emissions} = \frac{\text{lbs produced} \times EF}{(2000 \text{ lbs})}$$

$$TSD = TPY / (6 \times 52)$$

Bakery emissions are shown in Table 3-24. Population information necessary for calculating these emissions is found in Table 3-1.

Table 3-24
Summary of Emissions From Bakeries

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)
Boyd	7.69	0.02
TOTAL	7.69	0.02

3.4.5.2 Breweries

A review of *County Business Patterns*⁵ showed no breweries in the nonattainment area in Kentucky. Therefore, this category was not inventoried.

3.4.5.3 Wineries

Based on EPA guidance,¹ a review of *County Business Patterns*⁵ showed no wineries located in the nonattainment area in Kentucky. Therefore, this category was not inventoried.

3.4.5.4 Distilleries

Emissions for this category are included in the point source portion of this inventory.

3.4.5.5 Silage Storage

EPA guidance¹ stated that this was not a required source category. Since emissions from silage would be typically during the winter months, this category was not inventoried.

3.4.6 Other Area Sources

Sources included in this category are miscellaneous combustion sources and leaking underground storage tanks.

3.4.6.1 Miscellaneous Combustion Sources

Several types of fires and burning activities potentially contribute to this subcategory. They are as follows:

- (1) Forest Fires;
- (2) Slash Burning and Prescribed Burning;

- (3) Agricultural Burning;
- (4) Structure Fires; and,
- (5) Orchard Heaters.

The division calculated emissions for forest fires and structure fires. The remaining miscellaneous combustion activities were found not to be widespread in Kentucky and therefore were not addressed.

3.4.6.1.1 Forest Fires

A federal guidance document¹ provided the methodology the division used for calculating emissions for this area source category. This methodology involves estimating the amount of material consumed by multiplying the number of acres burned in each area examined by a fuel loading factor (i.e., material consumed per acre of land burned). A fuel loading factor of 6.6 tons of material consumed per acre burned and the number of acres burned in each area examined was obtained from the Kentucky Division of Forestry.¹³ Appropriate emission factors from a federal reference document² are: 24 for Total Hydrocarbons (THC), 140 for CO, and 4 for NO_x. However, according to another federal reference document,¹⁴ only 79.71 percent of the THC emissions derived from the above THC emission factor are reactive. Therefore, the VOC emission factor utilized for this area source category was 19.13. This VOC emission factor information is based on information derived from a federal reference document.¹⁵ The emission factors are in units of pounds per ton of material burned.

Emissions per typical summer day for this area source category were calculated using a federal guidance document.¹ The calculated annual tons of VOC emissions was divided by the product of the number of activity days per week and the number of weeks in a year. For forest fires no seasonal adjustment factor was applied since activity was considered uniform year round and the activity days per week was 7. The calculations used to determine emissions from this category are as follows.

$$TPY = \frac{(\# \text{ of Acres Consumed} \times \text{Tons of Growth})}{(\text{per County per Acre consumed})} \times \frac{EF}{(lbs)} \times \frac{1 \text{ ton}}{(2000 \text{ lbs})}$$

$$TSD = TPY / (7 \times 52)$$

Forest fire emissions are provided in Table 3-25. Additionally, acreage burned for individual areas is provided in Table 3-26.

**Table 3-25
Summary of Emissions From
Forest Fires**

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)	Annual CO Emissions (tons/year)	Daily CO Emissions (tons/day)	Annual NOx Emissions (tons/year)	Daily NOx Emissions (tons/day)
Boyd	1.96	0.01	14.32	0.04	0.41	0.00
TOTAL	1.96	0.01	14.32	0.04	0.41	0.00

**Table 3-26
2002 Acreage Burned By Forest Fires**

County	Forest Fires Acres Burned
Boyd	31
TOTAL	31

3.4.6.1.2 Structure Fires

Federal guidance¹ provided the methodology the division used for calculating emissions for this area source category. This methodology involves estimating the amount of material consumed by multiplying the number of structure fires occurring in each area examined by a fuel loading factor (i.e., material consumed per structure fire). A fuel loading factor of 6.8 tons of material consumed per fire was provided in a federal guidance document¹ and information on the number of structure fires which occurred in Kentucky in 2002 was derived by assuming an average of 6 fires per 1000 population in an area in accordance with Volume I guidance. Based on federal guidance,¹ the emission factors applied are: 11 for VOC, 60 for CO, and 1.4 for NO_x. The emission factors are in units of pounds per ton of material burned.

Emissions per typical summer day for this area source category were calculated using federal guidance.¹ The calculated annual tons of VOC emissions were divided by the product of the number of activity days per week and the number of weeks in a year. For structure fires no seasonal adjustment factor was applied since activity was considered uniform year round and the activity days per week were 7. The calculations used to estimate emissions from this category are as follows.

$$TPY = \frac{(6 \text{ fires} \times \text{population})}{(1000 \text{ pop.})} \times \frac{6.8 \text{ tons of material burned}}{\text{per fire}} \times \frac{EF}{(lbs)} \times \frac{1 \text{ ton}}{(2000 \text{ lbs})}$$

$$TSD = TPY / (7 \times 52)$$

Structure fire emissions are provided in Table 3-27. The data used to calculate these emissions is located in Table 3-28.

Table 3-27
Summary of Emissions From
Structure Fires

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)	Annual CO Emissions (tons/year)	Daily CO Emissions (tons/day)	Annual NOx Emissions (tons/year)	Daily NOx Emissions (tons/day)
Boyd	11.15	0.03	60.79	0.17	1.42	0.00
TOTAL	11.15	0.03	60.79	0.17	1.42	0.00

Table 3-28
Number of Structure Fires

County	Number of Structure Fires
Boyd	298
TOTAL	298

3.4.6.1.3 Slash Burning and Prescribed Burning

Information received from the Kentucky Division of Forestry¹⁹ revealed that these activities are not widespread in Kentucky and emissions for this category were not inventoried.

3.4.6.1.4 Agricultural Burning

Information received from the Kentucky Division of Forestry¹⁹ showed that this is not a widespread practice in Kentucky and emissions for this category were not inventoried.

3.4.6.1.5 Orchard Heaters

The use of orchard heaters is not common in Kentucky. Therefore, this category was not inventoried.

3.4.6.2 Leaking Underground Storage Tanks

Leaking underground storage tanks typically do not become quantifiable sources of VOC air emissions until excavation and remediation efforts are initiated. Remediation efforts vary widely depending upon the type of contaminant, magnitude of the leak and the extent of groundwater contamination, if any.

Information obtained from the Division of Waste Management shows no leaking underground storage tank remediation,²⁰ therefore no emissions were calculated.

Table 3-29
Summary of Area Source Emissions

Source Category	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)	Annual CO Emissions (tons/year)	Daily CO Emissions (tons/day)	Annual NOx Emissions (tons/year)	Daily NOx Emissions (tons/day)
Boyd County						
Gasoline Breathing	20.48	0.06				
Gasoline Transit	1.54	0.01				
Total Gas Unloading	158.14	0.55				
Total Air Refueling	0.00	0.00				
Solvent Dry Cleaning	27.28	0.10				
Surface Cleaning Degreasing	82.12	0.26				
Architectural Surface Coating	114.09	0.41				
Auto Refinishing	57.04	0.22				
Traffic Markings	12.40	0.05				
Graphic Arts	32.24	0.12				
Cutback Asphalt Paving	9.18	0.04				
Pesticide Application	3.50	0.01				
Commercial/Consumer Use	194.44	0.53				
POTW	7.23	0.03				
Industrial Wastewater	0.00	0.00				
Municipal Landfills	30.60	0.08				
Total Onsite Incineration	2.32	0.01	81.90	0.23	15.02	0.04
Total Open Burning	98.94	0.27	280.33	0.77	19.79	0.05
Bakeries	7.69	0.02	0.00	0.00	0.00	0.00
Forest Fires	1.96	0.01	14.32	0.04	0.41	0.00
Structure Fires	11.15	0.03	60.79	0.17	1.42	0.00
Leaking Underground Storage Tanks	0.00	0.00	0.00	0.00	0.00	0.00
Grand Total Area Emissions	872.34	2.81	437.34	1.21	36.64	0.09

3.5 REFERENCES FOR SECTION 3

1. U.S. Environmental Protection Agency. Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations. EPA-454/R-05-001. Research Triangle Park, North Carolina. August 2005, which references Procedures for the Preparation of Emission Inventories for Carbon Monoxide and Precursors of Ozone, Volume I. EPA-450/4-91-016. Research Triangle Park, North Carolina. May 1991.
2. U.S. Environmental Protection Agency. Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources. AP-42. Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina. January 1995.
3. Kentucky Cabinet for Economic Development Cabinet. 2000 Kentucky Deskbook of Economic Statistics, Frankfort, Kentucky. Population for Counties by Urban and Rural Areas: 2000.
4. Kentucky Cabinet for Economic Development Cabinet and the University of Louisville, State Data Center. 2002 Population Statistics.
5. U.S. Department of Commerce, Bureau of the Census. 2002 County Business Patterns, Kentucky. CBP/00-19. Washington, D.C. November 2004.
6. U.S. Department of Commerce, Bureau of the Census. 2002 Economic Census Retail Trade, Geographic Area Series-Kentucky. EC97R44A-KY. Washington, D.C. May 2005.
7. The Kentucky Revenue Cabinet's Motor Fuels Tax Section. Taxable gasoline gallons for Kentucky for calendar year 2002. Frankfort, Kentucky.
8. Telecon. Ernest Collins, Manager, Technical Support Branch, Division of Environmental Services - Pesticides, Kentucky Department of Agriculture to Joe Forgacs, Kentucky Division for Air Quality. Availability of state or county statistics on the types and amounts of pesticides used. December 19, 2005.
9. Telecon. Dr. Lee Townsend, Department of Entomology, University of Kentucky to Joe Forgacs, Kentucky Division for Air Quality. Availability of state or county statistics on the types and amounts of pesticides used. January 4, 2006.
10. Correspondence from the Kentucky Division for Air Quality to the U.S. EPA, Region 4. Request for the use of an alternative method for estimating the VOC emissions from pesticides. September 30, 1989.
11. Correspondence from Bruce P. Miller, U.S. EPA, Region 4, to the Kentucky Division for Air Quality. Approval of method for estimating the emissions of VOCs from pesticide use. November 7, 1989.

12. Kentucky Natural Resources and Environmental Protection Cabinet, Department for Environmental Protection, Division of Water. 2002 POTW industrial discharge information was obtained.
13. Kentucky Natural Resources and Environmental Protection Cabinet, Department for Natural Resources, Division of Forestry. 2002 Forest acreage burned in Kentucky was obtained. April 2003.
14. United States Environmental Protection Agency, Region 4. 1980 Area Source Emissions Inventory - Louisville, Kentucky AQCR (VOC/NOX). EPA-904/9-18-074. Atlanta, Georgia. September 1981.
15. U.S. Environmental Protection Agency. Air Emissions Species Manual, Volume I, Volatile Organic Compound Species Profiles. EPA-450/2-88-003a. Research Triangle Park, North Carolina. April 1988.
16. Survey of Municipal Solid Waste landfills conducted by the Kentucky Division for Air Quality pursuant to EPA regulations regarding such landfills. Obtained the 2000 tons of solid waste contained in Municipal Solid Waste Landfills in Kentucky. Submittal to EPA December 1998.
17. Radian Corporation, Technical Memorandum, Categorization of Industrial Wastewater Treatment Emissions, April 24, 1992.
18. Radian Corporation, Technical Memorandum, VOC Emissions from Bakeries, April 24, 1992.
19. Kentucky Natural Resources and Environmental Protection Cabinet, Department of Natural Resources, Division of Forestry. Correspondence confirming the lack of activity for slash Burning, Prescribed Burning, and Agricultural Burning, August 3, 1992.
20. Ramendra Dutta, Supervisor, Kentucky Natural Resources and Environmental Protection Cabinet, Department for Environmental Protection, Division of Waste Management. Underground storage tank corrective action plans for 2002 ozone season.
21. National Agricultural Statistics Service Website (www.nass.usda.gov/ky/). 2002 Kentucky harvested acreage obtained.
22. U.S. Environmental Protection Agency. Emission Inventory Improvement Program (EIIP) Guidance - Technical Documents for Area Source Emissions Inventory Preparation.
23. Previous EPA Region 4 guidance provided, during the preparation of 15% VOC plans, to exclude perchloroethylene emissions from dry cleaning VOC emissions.

24. U.S. Environmental Protection Agency emission inventory guidance provided to address double counting of surface cleaning emissions -- EPA's "Example Emission Inventory Documentation for Post-1987 Ozone State Implementation Plans (SIPs)", October 1989.
25. U.S. Environmental Protection Agency May 13, 1993, Helms guidance memorandum regarding the removal of perchloroethylene emissions from degreasing VOC emissions.
26. U.S. Department of Energy, 2002 Petroleum Marketing Annual, August 2003, DOE/EIA-0487 (2002), Energy Information Administration, Office of Oil & Gas, Washington, DC 20585.
27. U.S. Department of Commerce, U.S. Census Bureau, Paint and Allied Products: 2002, page 2, MA325F(02)-1, July 2003.
28. U.S. Census Bureau, Population Division, Table 1: Annual Estimates of the Population for the United States and States, and for Puerto Rico: April 1, 2000 to July 1, 2005, December 22, 2005.
29. Eastern Research Group, Traffic Markings, Volume III: Chapter 14, Emission Inventory Improvement Program, page 14.4-4, May 1997.

4.0 NON-HIGHWAY EMISSIONS

4.1 INTRODUCTION

This section documents the development of the 2002 nonroad emissions inventory for the Kentucky portion of the Huntington-Ashland 8-hour ozone nonattainment area (i.e., Boyd County). Nonroad sources include motorized vehicles and equipment, which are normally not operated on public roadways to provide transportation. The study and regulation of nonroad emission sources were mandated by the Clean Air Act Amendments of 1990.

4.2 METHODOLOGY AND APPROACH

Nonroad emissions were calculated in accordance with EPA's Mobile Volume IV¹ and EPA's National Emissions Inventory (NEI) development guidance³. For this inventory, nonroad emissions have been divided into three categories. Separate emission categories include aircraft, locomotives, and other nonroad (i.e., Non-Highway) sources. Methodologies for each of these categories are discussed separately.

4.3 SUMMARY OF EMISSIONS

Table 4-1 summarizes the inventory results for the other nonroad (i.e., Non-Highway) source emissions. Tables 4-2 and 4-3 summarize emissions from aircrafts. Tables 4-5 and 4-6 summarize emissions from locomotives. Table 4-8 summarizes emissions from all non-highway mobile emission categories.

4.4 DISCUSSION OF NONROAD CATEGORIES

4.4.1 Other Nonroad (i.e., Non-Highway) Sources

Emissions for the other nonroad source categories (e.g., construction and agricultural equipment) were estimated using EPA's Nonroad Model (Core Model Version 2005a, February 2006) in accordance with EPA Region 4 direction⁴ and EPA's NEI guidance³. As for inputs for the nonroad model RVP and temperature information was provided in accordance with EPA Volume IV guidance¹ and EPA Region 4 direction⁴ (*See Appendix C for nonroad model output and Appendix D*

for more information on temperature determinations).

The model provided county level ton per day (tpd) emission estimates for base year 2002 and for the projection years of 2004, 2005, 2008, 2011, 2014, 2017, and 2018.

The emissions for this category are provided in Table 4-1.

Table 4-1
Summary of Emissions
Other Non-Highway Mobile Sources

County	Daily VOC Emissions (tons/day)	Daily CO Emissions (tons/day)	Daily NOx Emissions (tons/day)
Boyd	0.71	9.37	0.63
TOTAL	0.71	9.37	0.63

4.4.2 Aircraft Emissions

Emissions from aircraft have been not been determined since Boyd County has no airports.

4.4.2 Locomotives

Emissions for railroad locomotives within Boyd County were calculated based upon December 1997 line haul and yard emission factors⁵. EPA utilized these same more recent emission factors in developing locomotive emissions for the 1999 National Emissions Inventory (NEI)³. EPA provided guidance to the Division in utilizing the newer locomotive emission factors⁵.

Railroad locomotives used in the United States are primarily of two types: electric and diesel-electric. Electric locomotives are powered by electricity generated at stationary power plants and distributed by either a third rail or overhead catenary system. Emissions are produced only at the electrical generation plant, which is considered a point source and therefore not of interest here.

Diesel-electric locomotives, on the other hand, use a diesel engine and an alternator or

generator to produce the electricity required to power its traction motors. Emissions produced by these diesel engines are of interest in the non-highway emission inventory development. Emissions for hydrocarbons (HC), carbon monoxide (CO), oxides of nitrogen (NO_x), sulfur dioxide (SO₂), and particulate matter (PM) from this source are covered in this chapter.

Railroads can be separated into three classes based on size: Class I, Class II, and Class III. Class I railroads represent the largest railroad systems in the country. Because of their size, Class I railroads operate over a large geographic area. Also, they carry most of the interstate freight and carry most of the passenger service. They are required to keep detailed records of their operations and to report yearly to the Interstate Commerce Commission (ICC).

Class II and III railroads represent the remainder of the rail transportation system and generally operate within smaller, localized areas. These smaller railroads are not subject to the same reporting requirements, and their record-keeping may be less extensive. Also, their fleet of locomotives tends to be older, with the Class I railroads buying almost all of the new locomotives.

Locomotives within each of the Classes can perform two different types of operations: line haul and yard (or switch). Line haul locomotives generally travel between distant locations, such as from one city to another. Yard locomotives are primarily responsible for moving rail cars within a particular railway yard.

Overview of Recommended Inventory Methodology

4.4.3.1 Line Haul Locomotives

For Class I, II, and III line haul locomotives, emissions were calculated by multiplying the amount of fuel consumed in the inventory area by the appropriate emission factors.

Line Haul Locomotive

$$\text{Inventory Area Emissions} = \text{Fuel Consumption} \times \text{Emission Factors}$$

Line haul locomotive fuel consumption information for Boyd County was supplied directly to the Division for Air Quality pursuant to a Division railroad questionnaire that was provided in July, 2003 to all railroads operating in the ozone nonattainment area (*Please see a copy of the 2002 railroad questionnaire which is included in Appendix G*). The questionnaire also requested information regarding the number of yard locomotives operating in the nonattainment county.

Emission Factors - Line Haul

With the line haul fuel consumption information obtained from the questionnaire, inventory area emissions were determined by multiplying that value by the fleet average emission factors for each pollutant (converted to pounds per gallon of fuel burned (lbs/gal)). The EPA recommended default emission factors⁵ that were utilized for all line haul locomotives are as follows.

Line Haul Locomotive Emission Factors

<u>Pollutant</u>	Emission Factor <u>(g/gal)</u>
HC	10
CO	26.6
NOx	270
PM	6.7

* g/gal emission factors converted to lbs/gal by multiplying the g/gal emission factor by .0022046.

4.4.3.2 Yard Locomotives

The recommended method for yard locomotives was same method used for line haul locomotives. With the line yard locomotive fuel consumption information obtained from the questionnaire, inventory area emissions were determined by multiplying that value by the fleet average emission factors for each pollutant (converted to pounds per gallon of fuel burned (lbs/gal)). Emissions for yard locomotives are calculated using the following formula:

Yard Locomotive

$$\text{Inventory Area Emissions} = \text{Fuel Consumption} \times \text{Emission Factors}$$

Yard Locomotive Emission Factors

The EPA recommended default emission factors⁸ that were utilized for all yard locomotives

are as follows.

Pollutant	Emission Factor <u>(g/gal)</u>
HC	21
CO	38.1
NO	362
PM	9.2

g/gal emission factors converted to lbs/gal by multiplying the g/gal emission factor by .0022046.

Seasonal Considerations Line and Yard Locomotives

Based on email with James Hou², Region 4 EPA, during March 2006, and Volume IV guidance¹, activity for railroad locomotives is considered to be uniform throughout the year. Additionally, the number of days of operation was assumed to be 365. Therefore, typical summer day emissions for line haul and yard locomotives were derived by using the following equation.

$$\text{Typical Summer Day Emissions (TSD)} = \text{Annual Locomotive Emissions (TYR)} / 365 \text{ days}$$

Converting from Total Hydrocarbons (THC) to Volatile Organic Compounds (VOC)

For Line and Yard Locomotives

In accordance with Volume IV guidance, the following THC to VOC conversion factor was used to determine the VOC emissions for line and yard locomotives.

$$\text{VOC Locomotive} = \text{THCFID Locomotive} \times 1.005$$

Emissions for line haul locomotives are provided in Table 4-2 and emissions for yard locomotives are provided in Table 4-3. Activity data (i.e., fuel consumed) used to calculate locomotive emissions can be found in Table 4-4. Total Non-Highway emissions are provided in Table 4-5.

Table 4-2
Summary of Emissions From Line Haul Locomotives

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)	Annual CO Emissions (tons/year)	Daily CO Emissions (tons/day)	Annual NOx Emissions (tons/year)	Daily NOx Emissions (tons/day)
Boyd	11.65	0.03	30.84	0.08	313.06	0.86
TOTAL	11.65	0.03	30.84	0.08	313.06	0.86

Table 4-3
Summary of Emissions From Yard Locomotives

County	Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)	Annual CO Emissions (tons/year)	Daily CO Emissions (tons/day)	Annual NOx Emissions (tons/year)	Daily NOx Emissions (tons/day)
Boyd	7.68	0.02	13.86	0.04	131.66	0.36
TOTAL	7.68	0.02	13.86	0.04	131.66	0.36

Table 4-4
Locomotive Fuel Information

County	Line Haul Locomotive Fuel (Gallons)	Yard Locomotive Fuel (Gallons)
Boyd	1,051,862	329,960
TOTAL	1,051,862	329,960

Table 4-5
Summary of Emissions From Non-Highway Mobile Sources

County	Category	**Annual VOC Emissions (tons/year)	Daily VOC Emissions (tons/day)	**Annual CO Emissions (tons/year)	Daily CO Emissions (tons/day)	**Annual NOx Emissions (tons/year)	Daily NOx Emissions (tons/day)
Boyd	Other Non-Highway	0.00	0.63	0.00	11.35	0.00	0.70
Boyd	Locomotive	19.33	0.05	44.70	0.12	444.72	1.22
Boyd	Aircraft	0.00	0.00	0.00	0.00	0.00	0.00
Boyd Emissions		19.33	0.68	44.70	11.47	444.72	1.92

**Annual other non-highway emissions not reflected in Table 4-5.

4.5 REFERENCES FOR SECTION 4

1. U.S. Environmental Protection Agency, Procedures for the Emission Inventory Preparation, Volume IV: Mobile Sources, EPA-450/4-81-026d (Revised), U.S. EPA, Office of Mobile Sources, Ann Arbor, MI and Office of Air Quality Planning & Standards, RTP, NC, 1992.
2. E-mail communication, James Hou, US EPA, Region 4, to Joe Forgacs, Kentucky Division for Air Quality concerning procedures for inventorying other nonroad engine categories, March 6, 2006.
3. U.S. Environmental Protection Agency, National Emissions Inventory (NEI) for 1999.
4. Communications with Dale Aspy, EPA Region 4, regarding nonroad emission inventory development, Summer and Fall 2002.
5. Communications with Dale Aspy, EPA Region 4, and Chuck Moulis, EPA OMS, regarding locomotive emission inventory development, Fall 2002

5.0 HIGHWAY VEHICLES

5.1 INTRODUCTION

This section documents the development of the 2002 highway mobile source emissions inventory for the Kentucky portion of the Huntington-Ashland 8-hour ozone nonattainment area, which includes Boyd County. The inventory addresses highway vehicles using gasoline and diesel. The inventory estimates are for a typical weekday during the summer ozone season (March - October), but more specifically for the summer quarter (i.e., June, July, and August).

The U.S. Environmental Protection Agency in conjunction with Sierra Research, Inc.¹, provided guidance for the preparation of this portion of the inventory.²

The Daily Vehicle Miles Traveled (DVMT) data was provided by the Kentucky Transportation Cabinet. Emission factors for highway vehicle classes were obtained from EPA's MOBILE6.2 highway mobile source emission factor estimation model. MOBILE6.2 model runs for the nonattainment area were performed by the Kentucky Division for Air Quality.

The highway vehicles inventory discussion is divided into three primary sections. Section 5.2 addresses the emissions estimation process using the MOBILE6.2 model.³ Section 5.3 addresses the mobile emissions for Boyd County. Mobile source references are found in Section 5.4.

5.2 EMISSIONS ESTIMATION PROCESS

5.2.1 Overview of Highway Vehicle Emissions Estimates

Highway vehicle emission estimates for the nonattainment area were calculated using the DVMT estimates and EPA's mobile source emission factor estimation model - MOBILE6.2. The emission factors produced by the MOBILE6.2 model in grams/mile (g/mile) were multiplied by the DVMT estimates and appropriate unit conversions to generate total emissions. Emission estimates were calculated for VOC, NO_x, and CO. Estimates of VOC emissions were made for vehicle exhaust, evaporative, refueling, resting, and running losses. The only sources of NO_x and CO emissions were vehicle exhaust losses. Highway vehicle emission estimates were calculated for base year 2002 and the projection years of 2005, 2008, 2011, 2014, 2017, and 2020. The agencies principally involved in producing the highway vehicle emission estimates were the Divisions of Planning and Multimodal Programs from the Kentucky Transportation Cabinet and the Kentucky Division for Air Quality. The Transportation Cabinet provided the following mobile source

information for Boyd County: (1) Road classifications, 2) Daily Vehicle Miles Traveled per road classification per county; and (3) Estimated average speeds for each road classification. The Division for Air Quality conducted all of the MOBILE6.2 model runs.

The inputs used to run the MOBILE6.2 model are described and presented in Section 5.2.2. Mobile source highway 2002 emissions are summarized in Table 5-1.

5.2.2 Inputs to MOBILE6.2

The chief inputs to the MOBILE6.2 model can be grouped into two main categories: the run section and the scenario section. Unless otherwise specified, national default values are used in the MOBILE6.2 model. The values used for each grouping in the area analysis are presented below and justified (*Please see Appendix D for mobile model input and output information*).

5.2.2.1 Run Section Data

The run section is similar to the one-time data section from the MOBILE5 model. In general, the two main values specified in the run section are the Reid Vapor Pressure for conventional gasoline (identified as “Fuel RVP”) and the minimum and maximum summer temperatures. Minimum and maximum summer temperature data will vary depending on the area in Kentucky (*Please see Appendix D for temperature information*).

5.2.2.2 Scenario Section Data

The scenario section of Mobile6.2 allows the specification of data for several parameters that can be varied to evaluate many different mobile source emission scenarios. These parameters are described below:

Scenario Record - This parameter is used to indicate a title. For Kentucky’s MOBILE6.2 model runs, the road classification is specified. The 12 road classifications (6 rural, 6 urban) that were used for the MOBILE5 model are also used for the MOBILE6.2 model runs.

Calendar Year - The calendar years for the analysis were 2002, 2004, 2005, 2008, 2011, 2014, 2017, and 2018.

Evaluation Month – A value of 7 was used to denote a summer MOBILE6.2 model run.

Average Speed - For each of the highway road classifications, a single speed was applied.

Speed data was supplied by the Kentucky Transportation Cabinet.

In the MOBILE6.2 model, there are four main speed categories: freeway, arterial, local, and ramp. For the 12 road classifications used in Kentucky's MOBILE6.2 model runs, each needs to be assigned one of the four speed categories. The 12 road classifications are broken down into 3 freeway road classifications, 8 arterial road classifications, and 1 local road classification. It should be noted that Rural Local has a speed category of Arterial, as advised by EPA.

Specific default speed data are used for specific speed categories. Unless specific local speeds are available, the default local speed of 12.9 mile per hour is used.

For the average speed component, it should be noted that additional data are indicated for the 3 freeway road classifications.⁴ The Daily Vehicle Miles Traveled (DVMT) distribution data are represented with 4 percentages: freeway, arterial, local, and ramp. For freeways, studies estimate that freeway and ramp represent 92% and 8% of all freeway VMT, respectively. Unless local data are available for the freeway category, the user needs to indicate "92.0 0.0 0.0 8.0".

Local data for VMT distribution was used. For example, the VMT distribution may be "92.4 0.0 0.0 7.6". Local data may even indicate that VMT distribution data are not needed for any of the freeway road classifications. The VMT distribution data will not be indicated in the Mobile6.2 input file for a freeway road classification unless DVMT data are associated with it. The Kentucky Transportation Cabinet has supplied local data for VMT distribution for this emissions inventory that is different from the default values of "92.0 0.0 0.0 8.0". Please see *Appendix D* for more-detailed highway mobile input file and DVMT information.

5.3 Summary of Highway Vehicle Emissions

Highway vehicle emission estimates were calculated by multiplying the Mobile6.2 generated emission factors by the DVMT. Typical Summer Day (TSD) emission totals are listed by county and summarized in Table 5-1.

TABLE 5-1
SUMMARY OF HIGHWAY MOBILE SOURCE EMISSIONS
Kentucky Portion of the Huntington-Ashland Metropolitan Statistical Area

COUNTY	HIGHWAY MOBILE SOURCE EMISSIONS		
	TOTAL VOC TSD*	TOTAL CO TSD*	TOTAL NO _x TSD*
BOYD	2.86	29.87	4.21
TOTAL	2.86	29.87	4.21

*Multiply tons per summer (TSD) emissions by 365 to estimate annual emissions.

5.4 REFERENCES FOR SECTION 5

1. Sierra Research, Inc., *MOBILE6 On-Road Motor Vehicle Emissions Model: 5-Day Training Course*, Atlanta, Georgia. February 4-8, 2002.
2. U.S. Environmental Protection Agency. *User's Guide to MOBILE6 – Mobile Source Emission Factor Model*. EPA420-R-02-001. Office of Mobile Sources, Ann Arbor, Michigan. January 2002.
3. U.S. Environmental Protection Agency, Instructions provided with the mobile model - MOBILE6.
4. U.S. Environmental Protection Agency, Dale Aspy, Region 4. Electronic mail correspondence with Joe Forgacs, Kentucky Division for Air Quality. Correction in MOBILE6 model to accurately reflect "Freeway" component. September 9, 2002.

6.0 BIOGENIC EMISSIONS

6.1 BACKGROUND

This section documents the development of the biogenic emissions for the Kentucky portion of the Huntington-Ashland 8-hour ozone nonattainment area, which includes Boyd County. Biogenic emissions are those emissions that are the result of natural processes occurring in vegetation and soils, and marine ecosystems, as a result of geological activity in the form of geysers or volcanoes, as a result of meteorological activity such as lightning, and from fauna, such as ruminants and termites. In accordance with EPA guidance¹, the 2002 biogenic emissions presented were obtained and derived from county-specific biogenic emission estimates that EPA developed to assist states with the Consolidated Emissions Reporting Rule (CERR).

6.2 METHODOLOGY

EPA estimated the biogenic emissions for the county using the Biogenic Emissions Inventory System - Version 3 (BEIS3.12). Annual biogenic emissions for Boyd County were obtained from the following EPA web site: <ftp://ftp.epa.gov/EmisInventory/prelim2002nei/biogenic/>.

Daily biogenic emissions were determined as follows:

Summer Seasonal

Adjustment Factor = (Summer County Emissions (June-August) / Annual County Emissions) / .25

Summer Day Emissions = (Annual County Emissions * Summer Seasonal Adjustment Factor) / 365

If applicable, for portions of counties the area apportionment factor provided in Table 1-1 was utilized to apportion emissions.

6.3 SUMMARY OF BIOGENIC EMISSIONS

6.3.1 Ozone Nonattainment Area

Biogenic emissions for Boyd County can be found in Table 6-1 and also in *Appendix E*. References for biogenic emissions are provided in Section 6.4.

TABLE 6-1**SUMMARY OF 2002 BIOGENIC EMISSIONS****KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND, WV-KY, AREA**

COUNTY	VOC EMISSIONS (tons/yr)	VOC EMISSIONS (tons/day)	NOX EMISSIONS (tons/yr)	NOX EMISSIONS (tons/day)
Boyd	5,126.57	33.01	37.93	0.15
Total Emissions	5,126.57	33.01	37.93	0.15

6.4 REFERENCES FOR SECTION 6

1. U.S. Environmental Protection Agency. EPA's estimate of 2002 Biogenic Emissions to assist states with the Consolidated Emissions Reporting Rule (CERR). Biogenic annual emission estimates are available at:
<ftp://ftp.epa.gov/EmisInventory/prelim2002nei/biogenic/>. For more information please contact Marc Houyoux, with EPA's Emission Factors and Inventory Group, at (919) 541-3649.

APPENDIX A

Point Source Emissions Inventory Information

2002 Point Source Survey Information

Sample Survey

**KENTUCKY DIVISION FOR AIR QUALITY
EMISSIONS INVENTORY SURVEY
FOR CALENDAR YEAR 2000**

21

Page 1 of 4

DNumber: 21

LEXINGTON, KY 40511

Attn:

Phone: (859) 243-828

Fax: (859) 243-820

E-mail Address:

Group: 009

Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	Operating Schedule	Hrs/Day	Days/Week	Wks/Yr
25%	25%	25%	25%		2	1	50

Process Unit: 1 PAINT SPRAY BOOTH _____ Tons Coating Mix Applied
Group: 016

Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	Operating Schedule	Hrs/Day	Days/Week	Wks/Yr
25%	25%	25%	25%		24	5	50

Process Unit: ZINC PLATING/BRNZE PLTNG _____ Tons Plated
Group: 017

Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	Operating Schedule	Hrs/Day	Days/Week	Wks/Yr
25%	25%	25%	25%		24	5	50

Process Unit: TIN PLTNG/RAWSTCK PRETRMT _____ Tons Plated
Group: 018

Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	Operating Schedule	Hrs/Day	Days/Week	Wks/Yr
25%	25%	25%	25%		24	5	50

Process Unit: ZINC PLATING _____ Tons Plated
Group: 019

Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	Operating Schedule	Hrs/Day	Days/Week	Wks/Yr
25%	25%	25%	25%		24	5	50

Process Unit: TIN PLTNG/RAWSTCK PRETRMT _____ Tons Plated
Sample Survey

0/03/20

**KENTUCKY DIVISION FOR AIR QUALITY
EMISSIONS INVENTORY SURVEY
FOR CALENDAR YEAR 2000**

Page 2 of 4

Sample Survey

21

				Operating Schedule		Hrs/Day	Days/Week	Wks/Yr
Dec-Feb	Mar-May	Jun-Aug	Sep-Nov					
25%	25%	25%	25%			24	7	52
cess Unit:								

4 BOILERS, 22.5 MMBTU-ECH _____ Million Cubic Feet Burned
 #2 FUEL-STANDBY _____ 1000 Gallons Burned _____ % ASH _____ % SULFUR

up: 026

				Operating Schedule		Hrs/Day	Days/Week	Wks/Yr
Dec-Feb	Mar-May	Jun-Aug	Sep-Nov					
5%	25%	25%	25%			24	6	50
cess Unit:								

CHROMATE WASTE WATERTREAT _____ Tons Product

up: 027

				Operating Schedule		Hrs/Day	Days/Week	Wks/Yr
Dec-Feb	Mar-May	Jun-Aug	Sep-Nov					
5%	25%	25%	25%			24	6	50
cess Unit:								

WASTE WATER TREAT _____ Tons Product

				Operating Schedule		Hrs/Day	Days/Week	Wks/Yr
Dec-Feb	Mar-May	Jun-Aug	Sep-Nov					
5%	25%	25%	25%			24	6	50
cess Unit:								

BONDAL BRONZE ELEC. PLAT. _____ Tons Plated

p: 029

				Operating Schedule		Hrs/Day	Days/Week	Wks/Yr
Dec-Feb	Mar-May	Jun-Aug	Sep-Nov					
5%	25%	25%	25%			18	5	50
cess Unit:								

ELECTRODERE PRETREATMENT _____ Tons Processed

p: 030

				Operating Schedule		Hrs/Day	Days/Week	Wks/Yr
Dec-Feb	Mar-May	Jun-Aug	Sep-Nov					
5%	25%	25%	25%			18	5	50
cess Unit:								

ELEC DEPOS WASH TUNNEL _____ Tons Processed

p: 031

				Operating Schedule		Hrs/Day	Days/Week	Wks/Yr
Dec-Feb	Mar-May	Jun-Aug	Sep-Nov					
5%	25%	25%	25%			18	5	50
cess Unit:								

COAT RINSE _____ Gallons Of Coating

Sample Survey

**KENTUCKY DIVISION FOR AIR QUALITY
EMISSIONS INVENTORY SURVEY
FOR CALENDAR YEAR 2000**

21

Page 3 of 4

Group: 032

Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	Operating Schedule	Hrs/Day	Days/Week	Wks/Yr
25%	25%	25%	25%		18	5	50

Process Unit: 1 BAKE OVEN _____ Gallons Of Coating

Group: 033

Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	Operating Schedule	Hrs/Day	Days/Week	Wks/Yr
25%	25%	25%	25%		18	5	50

Process Unit: 1 BAKE OVEN _____ Gallons Of Coating

Group: 036

Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	Operating Schedule	Hrs/Day	Days/Week	Wks/Yr
25%	25%	25%	25%		24	6	50

Process Unit: 1 MOLDING DEPARTMENT _____ Tons Processed

Group: 037

Feb	Mar-May	Jun-Aug	Sep-Nov	Operating Schedule	Hrs/Day	Days/Week	Wks/Yr
25%	25%	25%	25%		16	5	50

Process Unit: 1 2 THERMOPLASTIC MOLDERS _____ Tons Product

Group: 038

Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	Operating Schedule	Hrs/Day	Days/Week	Wks/Yr
25%	25%	25%	25%		24	5	50

Process Unit: SLUDGE DRYER _____ Gallons
HEAT SOURCE/SLUDGE DRYER _____ Million Cubic Feet Burned

Group: 088

Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	Operating Schedule	Hrs/Day	Days/Week	Wks/Yr
5%	25%	25%	25%		24	7	50

Process Unit: HOT ALKALINE DIP _____ Tons Plated
ELECTROCLEAN _____ Tons Plated

**KENTUCKY DIVISION FOR AIR QUALITY
EMISSIONS INVENTORY SURVEY
FOR CALENDAR YEAR 2000**

Page 4 of 4

Sample Survey

21.

89

				Operating Schedule			
Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	Hrs/Day	Days/Week	Wks/Yr	
25%	25%	25%	25%	24	7	52	
Process Unit:							

NITRIC ACID STRIP _____ Tons Plated

NITRIC ACID STRIP _____ Tons Plated

ALUMINUM SOAK CLEANER _____ Tons Plated

ALUMINUM ETCH CLEANER _____ Tons Plated

Dup: 090

				Operating Schedule			
Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	Hrs/Day	Days/Week	Wks/Yr	
25%	25%	25%	25%	24	7	52	
Process Unit:							

ALUMINUM DEOXIDIZER _____ Tons Plated

ACID DIP _____ Tons Plated

BONDAL CF _____ Tons Plated

BONDAL CF _____ Tons Plated

Dup: 091

				Operating Schedule			
Dec-Feb	Mar-May	Jun-Aug	Sep-Nov	Hrs/Day	Days/Week	Wks/Yr	
25%	25%	25%	25%	24	7	52	
Unit:							

TIN PLATERS _____ Tons Plated

TIN PLATERS _____ Tons Plated

COPPER PLATERS _____ Tons Plated

COPPER PLATERS _____ Tons Plated

I hereby certify that the information contained on the proceeding pages (number 1 through 4) and on the attached printout is accurate to the best of my knowledge. I understand that this information will be used to calculate my emission fee.

_____, Company Official

_____, Official Title

_____, Date of Signature

To the attached printout for more detailed information, such as control equipment and emission factors.

Attached printout is an informational copy; do not return it with this survey form. Please make a copy of this survey form to keep our records, and return the original in the enclosed envelope.

If you have any questions regarding any of the data contained in the printout or this survey form, please contact Diana Hogan, Kim Gray, Steve Hagedorn, or Andrea Wilson at (502) 573-3382.

Sample Report KENTUCKY DIVISION FOR AIR QUALITY
 KENTUCKY EMISSIONS INVENTORY SYSTEM
 DETAILED PLANT INFORMATION

Page 1 of 8

21

AQCR: 102

YEAR OF INVENTORY: 2000

FAYETTE COUNTY

LEXINGTON, KY 40511

PLANT LOCATION

LEXINGTON, KY 40511

Attn:

Phone: (859) 243-828

Fax Number: (859) 243-8201

E-mail Address:

Record	UTM Zone	UTM Horiz.	UTM Vert	Owner	Principal Product	Number Of Employees	Area In Acres
9901	16	717.4	4217.2	Facility Not Government Owned	ELEC EQUIP	1,500	26

State Plant Classification

X Minor/PTE < all major source levels

SIC Code	SIC Description
3613	Switchgear & Switchboard Apparatus

Program Code

N NSR, No Public Part
 O SIP Source

Program Status

O Operating
 O Operating

POLLUTANT ID NUMBER		POLLUTANT DESCRIPTION	ACTUAL	UNCONTROLLED	TITLE V PTE	TOTAL POTENTIAL
1310732		SODIUM HYDROXIDE	3.94177	7.808437	20.60584	20.60584
16887006		CHLORIDE	0.0384	0.0384	0.0252	0.0252
1439921		LEAD	0	0	2.33e-4	2.33e-4
66		METHANE	0.1524	0.1524	1.18206	1.18206
664417		PHOSPHORIC ACID	0.01409	0.02738	0.150698	0.150698
664939		HYDROGEN FLUORIDE	0.007746	0.007746	0.088892	0.088892
597372		AMMONIA	0.0528	0.0528	0.1232	0.1232
782505		SULFURIC ACID	7.8802	7.8802	812.1734	812.1734
O		NITRIC ACID	0.007136	0.014272	0.202964	0.202964
AP (SPC)		CHLORINE	0.06408	0.06408	0.918565	0.918565
D2		CARBON MONOXIDE	1.778	1.778	14.08822	14.08822
410		HAZARDOUS AIR POLLUTANTS	0.071826	0.071826	1.00769	1.00769
I2		NITROGEN DIOXIDE	7.112	7.112	56.37286	56.37286
XC		PARTICULATE MATTER 10	2.496004	2.803104	7.064387	7.064387
		TOTAL PARTICULATE MATTER	2.496004	2.803104	7.11989	7.11989
		SULFUR DIOXIDE	0.03048	0.03048	2.498396	2.498396
		VOLATILE ORGANIC COMPOUNDS	6.90479	6.90479	20.65978	20.65978

ant Notes:

COMMENTS:

1.167
 PH)

TELEPHONE EXTENSION IS 1653. THIS PER A PHONE CONVERSATION OF JUNE 16, 1989.

ANT BACKGROUND NOTES:

326 OPERATIONS SHOWN PREVIOUSLY AS POINTS 1 THRU 5 AND 11 HAVE BEEN MOVED AND THEREFORE ARE DELETED.

REMIT EVAL & REVIEW NOTES:

068 POINTS 7 AND 8 WILL CEASE OPERATIONS IN MARCH 1979

103/2002

Sample Report

KENTUCKY DIVISION FOR AIR QUALITY
KENTUCKY EMISSIONS INVENTORY SYSTEM
DETAILED PLANT INFORMATION

Page 2 of 8

AQCR: 102

11) T 34 BOILERS ACCOUNTED FOR UNDER PT 25.

YEAR OF INVENTORY: 2000

FAYETTE COUNTY

9.036 C-78-50 REPLACEMENT OF EXISTING PAINT LINE

I SECTION NOTES:

.046 079-17 7/13/79

.080 APPLICATION FOR OPERATING PERMIT, POINTS 14 AND 15, WAS RECEIVED DECEMBER 11, 1978.

.294 4600 ELECTRODEPOSITION PAINT SYSTEM INSTALLATION.

.004 6984 CONSTRUCTION PERMIT FOR WASTE WATER TREATMENT-SPRAY BOOTH-AND ELECTROPLATING OPERATION

.190 B163/ADDITION OF A SLUDGE DRYER.

.274 E583/TRIVIAL ACTIVITY: REPLACEMENT OF A SALT SPRAY CHAMBER. THIS WILL NOT BE ENTERED ON THE S.

ATA PROCESSING NOTES

.121 F559/ PROPOSES THE UPGRADE OF THE PLATING SYSTEM. POINTS 88, 89, 90, 91 ARE TO BE
STRUCTED AS ADDITIONAL PLATING LINES.

.0 . /88/ADDITIONAL INFO REQUESTED, RESPONSE BY 3/17/86

.008 KYD006386056

Sample Report

KENTUCKY DIVISION FOR AIR QUALITY
KENTUCKY EMISSIONS INVENTORY SYSTEM
DETAILED PLANT INFORMATION

Page 3 of 8

21

AQCR: 102

EMISSIONS SUMMARY BY GROUP:

YEAR OF INVENTORY: 2000

FAYETTE COUNTY

Group Description
POINT 009

Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS (TONS/YR)</u>	<u>EMISSIONS (NO CONTROL) (TONS/YR)</u>	<u>TITLE V PTE (TONS/YR)</u>	<u>TOTAL POTENTIAL (TONS/YR)</u>	<u>PERMIT LIMITATIONS</u>	
					<u>Tons/yr</u>	<u>lbs/hr</u>	<u>PPM</u>
M10	PARTICULATE MATTER 10	0.00525	0.0525	0.021	0.021		
T	TOTAL PARTICULATE MATTER	0.00525	0.0525	0.021	0.021	000002	
VOC	VOLATILE ORGANIC COMPOUNDS	0.169	0.169	0.676	0.676	000002	

Group Group Description
16 POINT 016

Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS (TONS/YR)</u>	<u>EMISSIONS (NO CONTROL) (TONS/YR)</u>	<u>TITLE V PTE (TONS/YR)</u>	<u>TOTAL POTENTIAL (TONS/YR)</u>	<u>PERMIT LIMITATIONS</u>	
					<u>Tons/yr</u>	<u>lbs/hr</u>	<u>PPM</u>
664417	AMMONIA	0.0528	0.0528	0.1232	0.1232		
M10	PARTICULATE MATTER 10	0.01077	0.02154	0.02513	0.02513	000005	
T	TOTAL PARTICULATE MATTER	0.01077	0.02154	0.02513	0.02513	000005	

Group Group Description
17 POINT 017

Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS (TONS/YR)</u>	<u>EMISSIONS (NO CONTROL) (TONS/YR)</u>	<u>TITLE V PTE (TONS/YR)</u>	<u>TOTAL POTENTIAL (TONS/YR)</u>	<u>PERMIT LIMITATIONS</u>	
					<u>Tons/yr</u>	<u>lbs/hr</u>	<u>PPM</u>
164393	HYDROGEN FLUORIDE	0.000666	0.000666	0.009823	0.009823		
197372	NITRIC ACID	0.006085	0.01217	0.179484	0.179484		
'2505	CHLORINE	0.02472	0.02472	0.364595	0.364595		
(P-SPC)	HAZARDOUS AIR POLLUTANTS	0.025386	0.025386	0.374418	0.374418		
	PARTICULATE MATTER 10	0.0543	0.1086	0.800871	0.800871	000011	
	TOTAL PARTICULATE MATTER	0.0543	0.1086	0.800871	0.800871	000011	

Group Group Description
8 POINT 018

Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS (TONS/YR)</u>	<u>EMISSIONS (NO CONTROL) (TONS/YR)</u>	<u>TITLE V PTE (TONS/YR)</u>	<u>TOTAL POTENTIAL (TONS/YR)</u>	<u>PERMIT LIMITATIONS</u>	
					<u>Tons/yr</u>	<u>lbs/hr</u>	<u>PPM</u>
10732	SODIUM HYDROXIDE	3.866667	7.733334	13.04952	13.04952		
I10	PARTICULATE MATTER 10	0.04688	0.09376	0.079107	0.079107	000008	
	TOTAL PARTICULATE MATTER	0.04688	0.09376	0.079107	0.079107	000008	

Group Group Description
9 POINT 019

Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS (TONS/YR)</u>	<u>EMISSIONS (NO CONTROL) (TONS/YR)</u>	<u>TITLE V PTE (TONS/YR)</u>	<u>TOTAL POTENTIAL (TONS/YR)</u>	<u>PERMIT LIMITATIONS</u>	
					<u>Tons/yr</u>	<u>lbs/hr</u>	<u>PPM</u>
4382	PHOSPHORIC ACID	0.01329	0.02658	0.148423	0.148423		
4393	HYDROGEN FLUORIDE	0.00708	0.00708	0.079069	0.079069		
7372	NITRIC ACID	0.001051	0.002102	0.02348	0.02348		
2505	CHLORINE	0.03816	0.03816	0.426171	0.426171		
(P-SPC)	HAZARDOUS AIR POLLUTANTS	0.04524	0.04524	0.50524	0.50524		
I0	PARTICULATE MATTER 10	0.10554	0.21108	1.178671	1.178671	000007	
	TOTAL PARTICULATE MATTER	0.10554	0.21108	1.178671	1.178671	000007	

1/03/2002

Sample Report

AQCR: 102

Group Description
POINT 025

Record Date

KENTUCKY DIVISION FOR AIR QUALITY
KENTUCKY EMISSIONS INVENTORY SYSTEM
DETAILED PLANT INFORMATION

YEAR OF INVENTORY: 2000

Page 4 of 8

FAYETTE COUNTY

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u> <u>Tons/yr</u> <u>lbs/hr</u> <u>PPM</u>
39921	LEAD	0	0	2.33e-4	2.33e-4	
128	METHANE	0.1524	0.1524	1.18206	1.18206	
1	CARBON MONOXIDE	1.778	1.778	14.06822	14.06822	
P (SPC)	HAZARDOUS AIR POLLUTANTS	0	0	2.33e-4	2.33e-4	
12	NITROGEN DIOXIDE	7.112	7.112	56.27286	56.27286	
110	PARTICULATE MATTER 10	0.1524	0.1524	1.237563	1.237563	
2	TOTAL PARTICULATE MATTER	0.1524	0.1524	1.293066	1.293066	000004
C	SULFUR DIOXIDE	0.03048	0.03048	1.355353	1.355353	000011
	VOLATILE ORGANIC COMPOUNDS	0.14224	0.14224	1.114357	1.114357	

Group Description
POINT 026

Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u> <u>Tons/yr</u> <u>lbs/hr</u> <u>PPM</u>
0732	SODIUM HYDROXIDE	0.064	0.064	6.390035	6.390035	
4939	SULFURIC ACID	4.0672	4.0672	406.0867	406.0867	

Group Description
POINT 027

Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u> <u>Tons/yr</u> <u>lbs/hr</u> <u>PPM</u>
D	SODIUM HYDROXIDE	0.01095	0.01095	1.166182	1.166182	
6939	SULFURIC ACID	3.813	3.813	406.0867	406.0867	
2505	CHLORINE	0.0012	0.0012	0.127799	0.127799	
P (SPC)	HAZARDOUS AIR POLLUTANTS	0.0012	0.0012	0.127799	0.127799	

Group Description
POINT 028

Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u> <u>Tons/yr</u> <u>lbs/hr</u> <u>PPM</u>
D	PARTICULATE MATTER 10	0.04236	0.08472	0.092768	0.092768	000003
	TOTAL PARTICULATE MATTER	0.04236	0.08472	0.092768	0.092768	000003

Group Description
POINT 029

Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u> <u>Tons/yr</u> <u>lbs/hr</u> <u>PPM</u>
82	PHOSPHORIC ACID	0.0008	0.0008	0.002275	0.002275	
	PARTICULATE MATTER 10	1.01632	1.01632	2.889906	2.889906	000005
	TOTAL PARTICULATE MATTER	1.01632	1.01632	2.889906	2.889906	000005

Group Description
POINT 030

Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u> <u>Tons/yr</u> <u>lbs/hr</u> <u>PPM</u>
	SODIUM HYDROXIDE	1.53e-4	1.53e-4	1.01e-4	1.01e-4	
	CHLORIDE	0.0384	0.0384	0.0252	0.0252	
	PARTICULATE MATTER 10	0.68	0.68	0.44625	0.44625	000005
	TOTAL PARTICULATE MATTER	0.68	0.68	0.44625	0.44625	000005

**KENTUCKY DIVISION FOR AIR QUALITY
KENTUCKY EMISSIONS INVENTORY SYSTEM
DETAILED PLANT INFORMATION**

21

AQCR: 102

YEAR OF INVENTORY: 2000

FAYETTE COUNTY

Group Description
POINT 031

Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u>		
VOC	VOLATILE ORGANIC COMPOUNDS	0.44785	0.44785	4.099709	4.099709	Tons/yr	lbs/hr	PPM

Group 032 Group Description
POINT 032 Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u>		
VOC	VOLATILE ORGANIC COMPOUNDS	0.44785	0.44785	4.099709	4.099709	Tons/yr	lbs/hr	PPM

Group 033 Group Description
POINT 033 Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u>		
VOC	VOLATILE ORGANIC COMPOUNDS	0.44785	0.44785	4.099709	4.099709	Tons/yr	lbs/hr	PPM

Group 036 Group Description
POINT 036 Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u>		
VOC	VOLATILE ORGANIC COMPOUNDS	5.25	5.25	6.565	6.565	Tons/yr	lbs/hr	PPM

Group 037 Group Description
POINT 037 Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u>		
410	PARTICULATE MATTER 10	0.002	0.002	0.057998	0.057998	Tons/yr	lbs/hr	PPM
	TOTAL PARTICULATE MATTER	0.002	0.002	0.057998	0.057998	000007		

Group 038 Group Description
POINT 038 Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u>		
2	CARBON MONOXIDE	0	0	0.02	0.02	Tons/yr	lbs/hr	PPM
10	NITROGEN DIOXIDE	0	0	0.1	0.1			
	PARTICULATE MATTER 10	0	0	0.00453	0.00453	000011		
	TOTAL PARTICULATE MATTER	0	0	0.00453	0.00453	000011		
C	SULFUR DIOXIDE	0	0	1.143043	1.143043	000011		
	VOLATILE ORGANIC COMPOUNDS	0	0	0.0053	0.0053	000011		

Group 039 Group Description
POINT 039 Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u>		
0	PARTICULATE MATTER 10	0.028908	0.028908	0.011511	0.011511	Tons/yr	lbs/hr	PPM
	TOTAL PARTICULATE MATTER	0.028908	0.028908	0.011511	0.011511			

Group 040 Group Description
POINT 040 Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u>		
	PARTICULATE MATTER 10	0.061057	0.061057	0.08364	0.08364	Tons/yr	lbs/hr	PPM
	TOTAL PARTICULATE MATTER	0.061057	0.061057	0.08364	0.08364			

Sample Report

**KENTUCKY DIVISION FOR AIR QUALITY
KENTUCKY EMISSIONS INVENTORY SYSTEM
DETAILED PLANT INFORMATION**

AQCR: 102

YEAR OF INVENTORY: 2000

PAYETTE COUNTY

Group Description
POINT 090

Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u> <u>Tons/yr</u> <u>lbs/hr</u> <u>PPM</u>
10	PARTICULATE MATTER 10	0.167404	0.167404	0.080189	0.080189	
	TOTAL PARTICULATE MATTER	0.167404	0.167404	0.080189	0.080189	

Group Description
POINT 091

Record Date

<u>POLLUTANT ID and DESCRIPTION</u>		<u>ESTIMATED EMISSIONS</u> (TONS/YR)	<u>EMISSIONS (NO CONTROL)</u> (TONS/YR)	<u>TITLE V PTE</u> (TONS/YR)	<u>TOTAL POTENTIAL</u> (TONS/YR)	<u>PERMIT LIMITATIONS</u> <u>Tons/yr</u> <u>lbs/hr</u> <u>PPM</u>
10	PARTICULATE MATTER 10	0.122815	0.122815	0.055253	0.055253	
	TOTAL PARTICULATE MATTER	0.122815	0.122815	0.055253	0.055253	

Compliance Data by Group

<u>Group Description</u>	<u>Program Compliance Status</u>	<u>Program Code</u>	<u>Program Status</u>
POINT 009	3 In Compliance-Inspection	0 SIP Source	<input type="radio"/> Operating
POINT 016	3 In Compliance-Inspection	N NSR, No Public Part	<input type="radio"/> Operating
POINT 017	3 In Compliance-Inspection	0 SIP Source	<input type="radio"/> Operating
POINT 018	3 In Compliance-Inspection	N NSR, No Public Part	<input type="radio"/> Operating
POINT 019	3 In Compliance-Inspection	0 SIP Source	<input type="radio"/> Operating
POINT 025	3 In Compliance-Inspection	N NSR, No Public Part	<input type="radio"/> Operating
POINT 026	3 In Compliance-Inspection	0 SIP Source	<input type="radio"/> Operating
POINT 027	1 In Violation-No Schedule	N NSR, No Public Part	<input type="radio"/> Operating
POINT 028	1 In Violation-No Schedule	0 SIP Source	<input type="radio"/> Operating
POINT 029	1 In Violation-No Schedule	N NSR, No Public Part	<input type="radio"/> Operating
POINT 030	3 In Compliance-Inspection	0 SIP Source	<input type="radio"/> Operating
POINT 031	3 In Compliance-Inspection	N NSR, No Public Part	<input type="radio"/> Operating
POINT 032	3 In Compliance-Inspection	0 SIP Source	<input type="radio"/> Operating
POINT 033	3 In Compliance-Inspection	N NSR, No Public Part	<input type="radio"/> Operating
POINT 036	3 In Compliance-Inspection	0 SIP Source	<input type="radio"/> Operating
POINT 037	4 In Compliance-Certification	N NSR, No Public Part	<input type="radio"/> Operating
POINT 038	4 In Compliance-Certification	0 SIP Source	<input type="radio"/> Operating
POINT 088	3 In Compliance-Inspection	N NSR, No Public Part	<input type="radio"/> Operating
POINT 089	3 In Compliance-Inspection	0 SIP Source	<input type="radio"/> Operating
NT 090	4 In Compliance-Certification	N NSR, No Public Part	<input type="radio"/> Operating
POINT 091	0 Unknown Compliance Status	0 SIP Source	<input type="radio"/> Operating
	0 Unknown Compliance Status	N NSR, No Public Part	<input type="radio"/> Operating
	0 Unknown Compliance Status	0 SIP Source	<input type="radio"/> Operating
	0 Unknown Compliance Status	N NSR, No Public Part	<input type="radio"/> Operating
	0 Unknown Compliance Status	0 SIP Source	<input type="radio"/> Operating
	0 Unknown Compliance Status	N NSR, No Public Part	<input type="radio"/> Operating
	0 Unknown Compliance Status	0 SIP Source	<input type="radio"/> Operating
	0 Unknown Compliance Status	N NSR, No Public Part	<input type="radio"/> Operating

Sample Report

**KENTUCKY DIVISION FOR AIR QUALITY
KENTUCKY EMISSIONS INVENTORY SYSTEM
DETAILED PLANT INFORMATION**

21

AQCR: 102

YEAR OF INVENTORY: 2000

FAYETTE COUNTY

AILS BY GROUP:Description

<u>Hours/Day</u>	<u>Days/Week</u>	<u>Weeks/Year</u>
------------------	------------------	-------------------

% Annual Throughput			
Dec-Feb	Mar-May	Jun-Aug	Sep-Nov

PROCESS UNIT INFORMATION: Group

<u>Process Number</u>	<u>Site Process Identifier</u>	<u>Fugitive Emissions</u>	<u>Sensitive Data</u>	<u>Source Type</u>	<u>Applicable Regulations</u>	<u>Boiler Capacity mmBTU/hr</u>	<u>Sulfur Content % Sulfur</u>	<u>Ash Content % Ash</u>
-----------------------	--------------------------------	---------------------------	-----------------------	--------------------	-------------------------------	---------------------------------	--------------------------------	--------------------------

STACK INFORMATION:

<u>Stack Number</u>	<u>Stack Description</u>	<u>Stack Height (ft)</u>	<u>Stack Diameter (ft)</u>	<u>Vent Height (ft)</u>	<u>Stack Flow Rate (acfm)</u>	<u>Stack Velocity (ft/sec)</u>	<u>Stack/Vent Temperature (F)</u>
---------------------	--------------------------	--------------------------	----------------------------	-------------------------	-------------------------------	--------------------------------	-----------------------------------

OPERATING INFORMATION:

<u>Process Description</u>	<u>SCC Codes and Description</u>
----------------------------	----------------------------------

<u>Construction Date</u>	<u>Log Number</u>	<u>Maximum Hourly Operating Rate (SCC Units/hr)</u>	<u>Annual Process Rate (SCC Units/yr)</u>	<u>Maximum Operation (hrs/yr)</u>	<u>Maximum Operation Limitations</u>
--------------------------	-------------------	---	---	-----------------------------------	--------------------------------------

<u>Voluntary Id and Description</u>	<u>Estimated Emissions Method</u>	<u>Emission Factor</u>	<u>Actual Ctrl. Eff.</u>	<u>Abatement Equipment Code and Description</u>	<u>PTE Ctrl. Eff.</u>	<u>Estimated Emissions (tons/yr)</u>	<u>Emissions Total (No Control) (tons/yr)</u>	<u>Potential Emissions (tons/yr)</u>	<u>Permit Limits (tons/yr)</u>
-------------------------------------	-----------------------------------	------------------------	--------------------------	---	-----------------------	--------------------------------------	---	--------------------------------------	--------------------------------

Sample Report

KENTUCKY DIVISION FOR AIR QUALITY
KENTUCKY EMISSIONS INVENTORY SYSTEM
DETAILED PLANT INFORMATION

**2002 Point Source
Emissions
For
Boyd County**

Table 2-1 Kentucky Portion of Huntington-Ashland Area 2002 Point Source Emissions

COUNTY	FACILITY NAME	Plant I.D. #	SIC Code	VOC				CO		NO2	
				tpy	tpd	tpy	tpd	tpy	tpd	tpy	tpd
BOYD	MARATHON ASHLAND PET LLC	21-019-00004	2911	5869.81	17.20	29416.72	84.09	4497.92	13.12		
BOYD	AK STEEL CORPORATION	21-019-00005	3312	6.69	0.01	32179.02	88.40	1164.33	3.19		
BOYD	CALGON CARBON CORPORATION	21-019-00014	2819	39.97	0.10	37.95	0.10	154.29	0.45		
BOYD	MARATHON ASHLAND PET LLC	21-019-00016	3731	135.97	0.37	2.60	0.01	3.10	0.02		
BOYD	KY ELECTRIC STEEL CORPORATION	21-019-00020	3312	44.66	0.18	270.10	1.13	195.38	0.81		
BOYD	AK STEEL CORPORATION	21-019-00027	3312	687.68	1.88	491.69	1.36	924.81	2.70		
	KENTUCKY TOTAL		6784.78	19.74	62398.08	175.09	6939.83	20.29			

2002 CO Point Source Emissions for Boyd County

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

09:20 Tuesday, April 11, 2006 1155

BOYD COUNTY
 CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

-- POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASSAINAME=Marathon Petroleum Co LLC - Catlettsburg Refining --

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
1	CO	2101900004	019	00004	001	1	30600103	1.0000000000	0	80	1.0000000000	N
2	CO	2101900004	019	00004	001	2	30600104	1.0000000000	0	80	1.0000000000	N
3	CO	2101900004	019	00004	002	1	30600105	1.0000000000	0	80	1.0000000000	N
4	CO	2101900004	019	00004	003	1	10200701	1.0000000000	0	80	1.0000000000	N
5	CO	2101900004	019	00004	004	1	30600103	1.0000000000	0	80	1.0000000000	N
6	CO	2101900004	019	00004	004	2	30600104	1.0000000000	0	80	1.0000000000	N
7	CO	2101900004	019	00004	005	1	30600103	1.0000000000	0	80	1.0000000000	N
8	CO	2101900004	019	00004	005	2	30600104	1.0000000000	0	80	1.0000000000	N
9	CO	2101900004	019	00004	006	1	30600103	1.0000000000	0	80	1.0000000000	N
10	CO	2101900004	019	00004	006	2	30600104	1.0000000000	0	80	1.0000000000	N
11	CO	2101900004	019	00004	007	1	30600104	1.0000000000	0	80	1.0000000000	N
12	CO	2101900004	019	00004	007	2	30600103	1.0000000000	0	80	1.0000000000	N
13	CO	2101900004	019	00004	008	1	30600103	1.0000000000	0	80	1.0000000000	N
14	CO	2101900004	019	00004	008	2	30600104	1.0000000000	0	80	1.0000000000	N
15	CO	2101900004	019	00004	009	1	30600104	1.0000000000	0	80	1.0000000000	N
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
1	N	1	1	0	F	0	7	52	0.00000	5.0000000000	0.00	0.00
2	N	1	1	20	F	0	7	52	0.00000	35.0000000000	0.35	0.00
3	N	1	1	508	F	32	7	52	1.78637	84.0000000000	21.34	0.08
4	N	1	1	67	F	34	7	52	0.25033	35.0000000000	1.17	0.00
5	N	1	1	0	F	24	7	52	0.00000	5.0000000000	0.00	0.00
6	N	1	1	192	F	24	7	52	0.50637	35.0000000000	3.36	0.01
7	N	1	1	0	F	0	7	52	0.00000	5.0000000000	0.00	0.00
8	N	1	1	0	F	0	7	52	0.00000	35.0000000000	0.00	0.00
9	N	1	1	0	F	0	7	52	0.00000	5.0000000000	0.00	0.00
10	N	1	1	0	F	0	7	52	0.00000	35.0000000000	0.00	0.00
11	N	1	1	475	F	33	7	52	1.72253	35.0000000000	8.31	0.03
12	N	1	1	0	F	28	7	52	0.00000	5.0000000000	0.00	0.00
13	N	1	1	621	F	28	7	52	1.91077	35.0000000000	10.87	0.03
14	N	1	1	2	F	25	7	52	0.00549	35.0000000000	0.04	0.00

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

BOYD COUNTY

CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

-- POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASSAINAME=Marathon Petroleum Co LLC - Catlettsburg Refining --
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	SCC	INC	CTEFF	RE	CTEFFX	ASHF
16	CO	2101900004	019	00004	010	1	30600104	1.00000000000	0	80	1.00000000000	N
17	CO	2101900004	019	00004	011	1	10200401	1.00000000000	.	80	1.00000000000	N
18	CO	2101900004	019	00004	011	2	10200701	1.00000000000	.	80	1.00000000000	N
19	CO	2101900004	019	00004	012	1	10200401	1.00000000000	0	80	1.00000000000	N
20	CO	2101900004	019	00004	012	2	10200701	1.00000000000	0	80	1.00000000000	N
21	CO	2101900004	019	00004	013	1	30600104	1.00000000000	0	80	1.00000000000	N
22	CO	2101900004	019	00004	014	1	30600104	1.00000000000	0	80	1.00000000000	N
23	CO	2101900004	019	00004	014	2	30600103	1.00000000000	0	80	1.00000000000	N
24	CO	2101900004	019	00004	015	1	30600104	1.00000000000	0	80	1.00000000000	N
25	CO	2101900004	019	00004	015	2	30600103	1.00000000000	0	80	1.00000000000	N
26	CO	2101900004	019	00004	016	1	30600104	1.00000000000	0	80	1.00000000000	N
27	CO	2101900004	019	00004	016	2	30600103	1.00000000000	0	80	1.00000000000	N
28	CO	2101900004	019	00004	017	1	30600104	1.00000000000	0	80	1.00000000000	N
29	CO	2101900004	019	00004	018	1	30600103	1.00000000000	0	80	1.00000000000	N
16	N	UPASH	UPSUL	FUEL_P	CONF	ATHU	DWK	WKYR	CPROD	EF	CATNY	CATND
17	N	1	1	2	F	25	7	52	0.00549	35.00000000000	0.04	0.00
18	N	1	1	.	Y	.	.	.	.	0.00	0.00	0.00
19	N	1	1	0	F	19	7	52	0.00000	5.00000000000	5.58	0.02
20	N	1	1	354	F	19	7	52	0.73912	35.00000000000	6.20	0.01
21	N	1	1	112	F	29	7	52	0.35692	35.00000000000	1.96	0.01
22	N	1	1	88	F	27	7	52	0.26110	35.00000000000	1.54	0.00
23	N	1	1	0	F	27	7	52	0.00000	5.00000000000	0.00	0.00
24	N	1	1	177	F	24	7	40	0.60686	35.00000000000	3.10	0.01
25	N	1	1	0	F	24	7	40	0.00000	5.00000000000	0.00	0.00
26	N	1	1	347	F	29	7	52	1.10582	35.00000000000	6.07	0.02
27	N	1	1	0	F	27	7	52	0.00000	5.00000000000	0.00	0.00
28	N	1	1	142	F	27	7	52	0.42132	35.00000000000	2.49	0.01
29	N	1	1	0	F	27	7	52	0.00000	5.00000000000	0.00	0.00

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

BOYD COUNTY

CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

-- POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASATNAME=Marathon Petroleum Co LLC - Catlettsburg Refining --
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
30	CO	2101900004	019	00004	018	2	30600104	1.000000000000	0	80	1.000000000000	N
31	CO	2101900004	019	00004	019	1	30600104	1.000000000000	0	80	1.000000000000	N
32	CO	2101900004	019	00004	020	1	30600104	1.000000000000	0	80	1.000000000000	N
33	CO	2101900004	019	00004	021	1	30600104	1.000000000000	0	80	1.000000000000	N
34	CO	2101900004	019	00004	022	1	30600104	1.000000000000	0	80	1.000000000000	N
35	CO	2101900004	019	00004	023	1	30600104	1.000000000000	0	80	1.000000000000	N
36	CO	2101900004	019	00004	024	1	30600103	1.000000000000	0	80	1.000000000000	N
37	CO	2101900004	019	00004	024	2	30600104	1.000000000000	0	80	1.000000000000	N
38	CO	2101900004	019	00004	025	1	30600103	1.000000000000	0	80	1.000000000000	N
39	CO	2101900004	019	00004	025	2	30600104	1.000000000000	0	80	1.000000000000	N
40	CO	2101900004	019	00004	026	1	30600103	1.000000000000	0	80	1.000000000000	N
41	CO	2101900004	019	00004	026	2	30600104	1.000000000000	0	80	1.000000000000	N
42	CO	2101900004	019	00004	027	1	30600103	1.000000000000	0	80	1.000000000000	N
43	CO	2101900004	019	00004	027	2	30600104	1.000000000000	0	80	1.000000000000	N
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
30	N	1	1	69	F	27	7	52	0.20473	35.0000000000	1.21	0.00
31	N	1	1	0	F	0	7	52	0.00000	35.0000000000	0.00	0.00
32	N	1	1	0	F	0	7	44	0.00000	35.0000000000	0.00	0.00
33	N	1	1	0	F	0	7	44	0.00000	35.0000000000	0.00	0.00
34	N	1	1	0	F	0	7	44	0.00000	35.0000000000	0.00	0.00
35	N	1	1	0	F	0	7	44	0.00000	35.0000000000	0.00	0.00
36	N	1	1	0	F	28	7	52	0.00000	5.0000000000	0.00	0.00
37	N	1	1	342	F	28	7	52	1.05231	35.0000000000	5.99	0.02
38	N	1	1	0	F	30	7	52	0.00000	5.0000000000	0.00	0.00
39	N	1	1	143	F	30	7	52	0.47143	35.0000000000	2.50	0.01
40	N	1	1	0	F	25	7	52	0.00000	5.0000000000	0.00	0.00
41	N	1	1	558	F	25	7	52	1.53297	35.0000000000	9.77	0.03
42	N	1	1	0	F	26	7	52	0.00000	5.0000000000	0.00	0.00
43	N	1	1	133	F	26	7	52	0.38000	35.0000000000	2.33	0.01

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

BOYD COUNTY

CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

-- POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASAIDNAME=Marathon Petroleum Co LLC - Catlettsburg Refining --
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
44	CO	2101900004	019	00004	028	1	30600103	1.0000000000	0	80	1.0000000000	N
45	CO	2101900004	019	00004	028	2	30600104	1.0000000000	0	80	1.0000000000	N
46	CO	2101900004	019	00004	029	1	30600104	1.0000000000	0	80	1.0000000000	N
47	CO	2101900004	019	00004	029	2	30600103	1.0000000000	0	80	1.0000000000	N
48	CO	2101900004	019	00004	030	1	30600104	1.0000000000	0	80	1.0000000000	N
49	CO	2101900004	019	00004	031	1	30600104	1.0000000000	0	80	1.0000000000	N
50	CO	2101900004	019	00004	032	1	30600103	1.0000000000	0	80	1.0000000000	N
51	CO	2101900004	019	00004	032	2	30600104	1.0000000000	0	80	1.0000000000	N
52	CO	2101900004	019	00004	033	2	30600105	1.0000000000	0	80	1.0000000000	N
53	CO	2101900004	019	00004	035	2	30600105	1.0000000000	0	80	1.0000000000	N
54	CO	2101900004	019	00004	036	2	30600105	1.0000000000	0	80	1.0000000000	N
55	CO	2101900004	019	00004	038	1	30600103	1.0000000000	0	80	1.0000000000	N
56	CO	2101900004	019	00004	038	2	30600104	1.0000000000	0	80	1.0000000000	N
57	CO	2101900004	019	00004	039	1	30600103	1.0000000000	0	80	1.0000000000	N
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
44	N	1	1	0	F	24	7	52	0.00000	5.0000000000	0.00	0.00
45	N	1	1	469	F	24	7	52	1.23692	35.0000000000	8.21	0.02
46	N	1	1	2178	F	25	7	52	5.98352	35.0000000000	38.12	0.10
47	N	1	1	0	F	25	7	52	0.00000	5.0000000000	0.00	0.00
48	N	1	1	398	F	28	7	52	1.22462	35.0000000000	6.97	0.02
49	N	1	1	842	F	34	7	52	3.14593	84.0000000000	35.36	0.13
50	N	1	1	0	F	0	7	52	0.00000	5.0000000000	0.00	0.00
51	N	1	1	0	F	0	7	52	0.00000	35.0000000000	0.00	0.00
52	N	1	1	606	F	40	7	52	2.66374	84.0000000000	25.45	0.11
53	N	1	1	1221	F	32	7	52	4.29363	84.0000000000	51.28	0.18
54	N	1	1	1243	F	31	7	52	4.23440	84.0000000000	52.21	0.18
55	N	1	1	0	F	0	7	52	0.00000	5.0000000000	0.00	0.00
56	N	1	1	0	F	0	7	52	0.00000	35.0000000000	0.00	0.00
57	N	1	1	0	F	0	7	52	0.00000	5.0000000000	0.00	0.00

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE MUNTINGTON-ASHLAND AREA

CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

-- POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASAINAME=Marathon Petroleum Co LLC - Catlettsburg Refining --
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
58	CO	2101900004	019	00004	039	2	30600104	1.0000000000	0.0	80	1.0000000000	N
59	CO	2101900004	019	00004	040	1	30600103	1.0000000000	0.0	80	1.0000000000	N
60	CO	2101900004	019	00004	040	2	30600104	1.0000000000	0.0	80	1.0000000000	N
61	CO	2101900004	019	00004	041	1	30600103	1.0000000000	0.0	80	1.0000000000	N
62	CO	2101900004	019	00004	042	1	30600103	1.0000000000	0.0	80	1.0000000000	N
63	CO	2101900004	019	00004	042	2	30600104	1.0000000000	0.0	80	1.0000000000	N
64	CO	2101900004	019	00004	043	1	30600103	1.0000000000	0.0	80	1.0000000000	N
65	CO	2101900004	019	00004	043	2	30600104	1.0000000000	0.0	80	1.0000000000	N
66	CO	2101900004	019	00004	044	1	30600103	1.0000000000	0.0	80	1.0000000000	N
67	CO	2101900004	019	00004	044	2	30600104	1.0000000000	0.0	80	1.0000000000	N
68	CO	2101900004	019	00004	045	1	30600103	1.0000000000	0.0	80	1.0000000000	N
69	CO	2101900004	019	00004	045	2	30600104	1.0000000000	0.0	80	1.0000000000	N
70	CO	2101900004	019	00004	047	1	30600105	1.0000000000	0.0	80	1.0000000000	N
71	CO	2101900004	019	00004	048	1	30600104	1.0000000000	0.0	80	1.0000000000	N
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWIK	WKYR	CPROD	EF	CATNY	CATND
58	N	1	1	0	F	0	7	52	0.00000	35.0000000000	0.00	0.00
59	N	1	1	0	F	0	7	52	0.00000	5.0000000000	0.00	0.00
60	N	1	1	0	F	0	7	52	0.00000	35.0000000000	0.00	0.00
61	N	1	1	0	F	30	7	52	0.00000	5.0000000000	0.00	0.00
62	N	1	1	0	F	26	7	52	0.00000	5.0000000000	0.00	0.00
63	N	1	1	124	F	26	7	52	0.35429	35.0000000000	2.17	0.01
64	N	1	1	0	F	25	7	52	0.00000	5.0000000000	0.00	0.00
65	N	1	1	131	F	25	7	52	0.35989	35.0000000000	2.29	0.01
66	N	1	1	0	F	28	7	52	0.00000	5.0000000000	0.00	0.00
67	N	1	1	625	F	28	7	52	1.92308	35.0000000000	10.94	0.03
68	N	1	1	0	F	26	7	52	0.00000	5.0000000000	0.00	0.00
69	N	1	1	21	F	26	7	52	0.06000	35.0000000000	0.37	0.00
70	N	1	1	340	F	31	7	52	1.15824	84.0000000000	14.28	0.05
71	N	1	1	0	F	0	7	52	0.00000	35.0000000000	0.00	0.00

09:20 Tuesday, April 11, 2006 1160

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

BOYD COUNTY

CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

-- POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASAATNAME=Marathon Petroleum Co LLC - Catlettsburg Refining --
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFX	ASHF
72	CO	2101900004	019	00004	049	1	30600104	1.000000000000	0.0	80	1.000000000000	N
73	CO	2101900004	019	00004	050	1	30600104	1.000000000000	0.0	80	1.000000000000	N
74	CO	2101900004	019	00004	050	2	30600104	1.000000000000	0.0	80	1.000000000000	N
75	CO	2101900004	019	00004	051	1	30600104	1.000000000000	0.0	80	1.000000000000	N
76	CO	2101900004	019	00004	052	1	30600104	1.000000000000	0.0	80	1.000000000000	N
77	CO	2101900004	019	00004	052	2	30600104	1.000000000000	0.0	80	1.000000000000	N
78	CO	2101900004	019	00004	053	2	30600105	1.000000000000	0.0	80	1.000000000000	N
79	CO	2101900004	019	00004	054	2	30600105	1.000000000000	0.0	80	1.000000000000	N
80	CO	2101900004	019	00004	055	2	30600105	1.000000000000	0.0	80	1.000000000000	N
81	CO	2101900004	019	00004	056	1	30600105	1.000000000000	0.0	80	1.000000000000	N
82	CO	2101900004	019	00004	057	1	30600105	1.000000000000	0.0	80	1.000000000000	N
83	CO	2101900004	019	00004	058	1	30600104	1.000000000000	0.0	80	1.000000000000	N
84	CO	2101900004	019	00004	060	1	10200401	1.000000000000	0.0	80	1.000000000000	N
85	CO	2101900004	019	00004	060	2	10200701	1.000000000000	0.0	80	1.000000000000	N
Obs	SULF	UPASH	UPSUL	FUELTP	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
72	N	1	1	618	F	30	7	52	2.03736	35.0000000000	10.82	0.04
73	N	1	1	751	F	31	7	52	2.55835	35.0000000000	13.14	0.04
74	N	1	1	0	F	31	7	52	0.00000	35.0000000000	0.00	0.00
75	N	1	1	1038	F	32	7	52	3.65011	35.0000000000	18.17	0.06
76	N	1	1	537	F	31	7	52	1.82934	35.0000000000	9.40	0.03
77	N	1	1	212	F	31	7	52	0.72220	35.0000000000	3.71	0.01
78	N	1	1	154	F	33	7	52	0.55846	84.0000000000	6.47	0.02
79	N	1	1	190	F	35	7	52	0.73077	84.0000000000	7.98	0.03
80	N	1	1	309	F	32	7	52	1.08659	84.0000000000	12.98	0.05
81	N	1	1	701	F	30	7	52	2.31099	84.0000000000	29.44	0.10
82	N	1	1	669	F	28	7	52	2.05846	84.0000000000	28.10	0.09
83	N	1	1	112	F	23	7	52	0.28308	35.0000000000	1.96	0.00
84	N	1	1	0	F	0	7	26	0.00000	5.0000000000	0.00	0.00
85	N	1	1	0	F	0	7	26	0.00000	35.0000000000	0.00	0.00

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA
 BOYD COUNTY

09:20 Tuesday, April 11, 2006 1161

CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

-- POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASSAINAME=Marathon Petroleum Co LLC - Catlettsburg Refining
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
86	CO	2101900004	019	00004	061	1	10200401	1.000000000000	0.0	80	1.000000000000	N
87	CO	2101900004	019	00004	061	2	10200701	1.000000000000	0.0	80	1.000000000000	N
88	CO	2101900004	019	00004	062	1	10200401	1.000000000000	0.0	80	1.000000000000	N
89	CO	2101900004	019	00004	062	2	10200701	1.000000000000	0.0	80	1.000000000000	N
90	CO	2101900004	019	00004	063	1	10200401	1.000000000000	0.0	80	1.000000000000	N
91	CO	2101900004	019	00004	063	2	10200701	1.000000000000	0.0	80	1.000000000000	N
92	CO	2101900004	019	00004	064	1	30600201	1.000000000000	97.7	80	0.218400000000	N
93	CO	2101900004	019	00004	064	2	10200401	1.000000000000	97.7	80	0.218400000000	N
94	CO	2101900004	019	00004	064	3	10200601	1.000000000000	97.7	80	0.218400000000	N
95	CO	2101900004	019	00004	065	1	30600103	1.000000000000	0.0	80	1.000000000000	N
96	CO	2101900004	019	00004	065	2	30600104	1.000000000000	0.0	80	1.000000000000	N
97	CO	2101900004	019	00004	066	1	30600104	1.000000000000	.	80	1.000000000000	N
98	CO	2101900004	019	00004	068	1	30699999	1.000000000000	0.0	80	1.000000000000	N
99	CO	2101900004	019	00004	069	1	30600104	1.000000000000	0.0	80	1.000000000000	N
86	N	UPASH	UPSUL	FUEL P	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
87	N	2024.00	F	26	7	52	0.00	5.000000000000	0.00	0.00	0.00	0.00
88	N	442.00	F	26	7	52	5.78	35.000000000000	35.42	0.10	0.00	0.00
89	N	0.00	F	26	7	52	0.00	5.000000000000	0.00	0.00	0.00	0.00
90	N	0.00	F	26	7	52	1.26	35.000000000000	7.74	0.02	0.00	0.00
91	N	432.00	F	23	7	52	0.00	5.000000000000	0.00	0.00	0.00	0.00
92	N	1053.00	F	0	7	52	1.09	35.000000000000	7.56	0.02	0.00	0.00
93	N	0.00	F	0	7	52	0.00	13700.0000000000	1575.33	0.00	0.00	0.00
94	N	404.00	F	0	7	52	0.00	5.000000000000	0.00	0.00	0.00	0.00
95	N	0.00	F	25	7	52	0.00	40.000000000000	1.76	0.00	0.00	0.00
96	N	553.00	F	25	7	52	1.52	35.000000000000	9.68	0.03	0.00	0.00
97	N	.	Y	.	.	.	.	.	.	0.75	0.00	0.00
98	N	0.00	F	0	7	52	0.00	0.000000000000	0.00	0.00	0.00	0.00
99	N	0.00	F	0	2	52	0.00	35.000000000000	0.00	0.00	0.00	0.00

09:20 Tuesday, April 11, 2006 1162

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

BOYD COUNTY
 CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

-- POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASAINAME=Marathon Petroleum Co LLC - Catlettsburg Refining --
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFX	ASHF
100	CO	2101900004	019	00004	072	1	30600104	1.000000000000	0	80	1.000000000000	N
101	CO	2101900004	019	00004	087	2	39999992	1.000000000000	0	80	1.000000000000	N
102	CO	2101900004	019	00004	087	3	39000489	1.000000000000	0	80	1.000000000000	N
103	CO	2101900004	019	00004	092	2	10200602	1.000000000000	0	80	1.000000000000	N
104	CO	2101900004	019	00004	094	1	30600106	1.000000000000	0	80	1.000000000000	N
105	CO	2101900004	019	00004	095	1	30600105	1.000000000000	0	80	1.000000000000	N
106	CO	2101900004	019	00004	096	1	30600105	1.000000000000	0	80	1.000000000000	N
107	CO	2101900004	019	00004	097	1	30600105	1.000000000000	0	80	1.000000000000	N
108	CO	2101900004	019	00004	OAP	3	30600106	1.000000000000	0	80	1.000000000000	N
109	CO	2101900004	019	00004	0MT	2	10500106	1.000000000000	0	80	1.000000000000	N
110	CO	2101900004	019	00004	0MU	2	10500106	1.000000000000	0	80	1.000000000000	N
111	CO	2101900004	019	00004	0QK	1	30699999	1.000000000000	0	80	1.000000000000	N
112	CO	2101900004	019	00004	0QL	1	30699999	1.000000000000	0	80	1.000000000000	N
113	CO	2101900004	019	00004	OQR	1	30600401	1.000000000000	0	80	1.000000000000	N
Obs	SULF	UPASH	UPSUL	FUEL P	CONF	ATHJ	DWK	WKYR	CPRD	EF	CATNY	CATND
100	N	1	1	500.00	F	30	7	52	1.65	35.0000000000	8.75	0.03
101	N	1	1	0.00	F	0	1	1	0.00	22837.9000000000	0.00	0.00
102	N	1	1	274.00	F	0	1	1	0.00	5.0000000000	0.69	0.00
103	N	1	1	130.00	F	26	7	52	0.37	35.0000000000	2.28	0.01
104	N	1	1	211.00	F	26	7	52	0.60	35.0000000000	3.69	0.01
105	N	1	1	219.00	F	29	7	52	0.70	84.0000000000	9.20	0.03
106	N	1	1	220.00	F	28	7	52	0.68	84.0000000000	9.24	0.03
107	N	1	1	684.00	F	30	7	52	2.25	84.0000000000	28.73	0.09
108	N	1	1	8.00	F	26	7	52	0.02	84.0000000000	0.34	0.00
109	N	1	1	0.87	F	8	7	52	0.00	35.0076000000	0.02	0.00
110	N	1	1	0.34	F	0	7	52	0.00	35.0076000000	0.01	0.00
111	N	1	1	4978343.00	F	25	7	52	13676.77	0.0000000000	0.00	0.00
112	N	1	1	4978343.00	F	25	7	52	13676.77	0.0000000000	0.00	0.00
113	N	1	1	75801.00	F	29	7	52	241.56	4.3000000000	162.97	0.52

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA
 BOYD COUNTY

09:20 Tuesday, April 11, 2006 1163

CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

-- POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASSATNAME=Marathon Petroleum Co LLC - Catlettsburg Refining --
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
114	CO	2101900004	019	00004	QQS	1	30699999	1.000000000000	0	80	1.000000000000	N
115	CO	2101900004	019	00004	QQT	1	30699998	1.000000000000	0	80	1.000000000000	N
116	CO	2101900004	019	00004	QQT	2	39990024	1.000000000000	0	80	1.000000000000	N
117	CO	2101900004	019	00004	QQU	1	30600904	1.000000000000	0	80	1.000000000000	N
118	CO	2101900004	019	00004	QQV	1	30699999	1.000000000000	0	80	1.000000000000	N
119	CO	2101900004	019	00004	QQX	1	30699998	1.000000000000	0	80	1.000000000000	N
120	CO	2101900004	019	00004	QQX	2	39990024	1.000000000000	0	80	1.000000000000	N
121	CO	2101900004	019	00004	OW1	1	10200701	1.000000000000	0	80	1.000000000000	N
122	CO	2101900004	019	00004	OXA	1	30600106	1.000000000000	0	80	1.000000000000	N
123	CO	2101900004	019	00004	OXB	1	30600106	1.000000000000	0	80	1.000000000000	N
124	CO	2101900004	019	00004	OXC	1	30600106	1.000000000000	0	80	1.000000000000	N
125	CO	2101900004	019	00004	OXD	1	30600106	1.000000000000	0	80	1.000000000000	N
126	CO	2101900004	019	00004	OXE	1	30600106	1.000000000000	0	80	1.000000000000	N
127	CO	2101900004	019	00004	GP1	1	30600104	1.000000000000	0	80	1.000000000000	N
114	N	1	1	0.00	F	0	7	52	0.00	0.000000000000	0.00	0.00
115	N	1	1	36.00	F	36	7	52	0.14	0.000000000000	0.00	0.00
116	N	1	1	1.00	F	36	7	52	0.00	20.000000000000	0.01	0.00
117	N	1	1	0.00	F	0	7	52	0.00	35.000000000000	0.00	0.00
118	N	1	1	144109.00	F	28	7	52	443.41	0.000000000000	0.00	0.00
119	N	1	1	207.00	F	23	7	52	0.52	1.406300000000	0.15	0.00
120	N	1	1	2.00	F	23	7	52	0.01	11.800000000000	0.01	0.00
121	N	1	1	908.00	F	27	7	52	2.69	40.150000000000	18.23	0.05
122	N	1	1	521.00	F	26	7	52	1.49	35.000000000000	9.12	0.03
123	N	1	1	562.00	F	26	7	52	1.61	35.000000000000	9.84	0.03
124	N	1	1	319.00	F	28	7	52	0.98	35.000000000000	5.58	0.02
125	N	1	1	246.00	F	26	7	52	0.70	35.000000000000	4.31	0.01
126	N	1	1	107.00	F	25	7	52	0.29	35.000000000000	1.87	0.01
127	N	1	1	193.00	F	26	7	52	0.55	15.522000000000	1.50	0.00

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA
BOYD COUNTY

CO₂ PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

-- POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 WASAINAME=Marathon Petroleum Co LLC - Catlettsburg Refining --
(continued)

POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=000005 MASAIDNAME=AK Steel Corp

Obs	POLLN	ALTFACID	City_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
132	N	1	1	26770.00	F	25	7	52	73.54	13.700000000000	183.37	0.50
133	C0	2101900005	019	00005	003	1	30390004	1.000000000000	0.00	80	1.000000000000	N
				214.00	F	25	7		0.59	84.000000000000	8.99	0.02

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE WINTON-ASHLAND AREA

09:20 Tuesday, April 11, 2006 1165

CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

-- POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTY=N=Boyd plant_id=00005 MASAIDNAME=AK Steel Corp -
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
134	CO	2101900005	019	00005	004	1	30390024	1.000000000000	0.00	80	1.000000000000	N
135	CO	2101900005	019	00005	026	2	39000699	1.000000000000	0.00	80	1.000000000000	N
136	CO	2101900005	019	00005	047	3	39000699	1.000000000000	0.00	80	1.000000000000	N
137	CO	2101900005	019	00005	052	1	10200704	1.000000000000	0.00	80	1.000000000000	N
138	CO	2101900005	019	00005	052	2	10200401	1.000000000000	0.00	80	1.000000000000	N
139	CO	2101900005	019	00005	052	3	10200601	1.000000000000	0.00	80	1.000000000000	N
140	CO	2101900005	019	00005	053	1	10200704	1.000000000000	0.00	80	1.000000000000	N
141	CO	2101900005	019	00005	053	2	10200401	1.000000000000	0.00	80	1.000000000000	N
142	CO	2101900005	019	00005	053	3	10200601	1.000000000000	0.00	80	1.000000000000	N
143	CO	2101900005	019	00005	054	1	10200704	1.000000000000	0.00	80	1.000000000000	N
144	CO	2101900005	019	00005	054	2	10200401	1.000000000000	0.00	80	1.000000000000	N
145	CO	2101900005	019	00005	054	3	10200601	1.000000000000	0.00	80	1.000000000000	N
146	CO	2101900005	019	00005	055	1	10200704	1.000000000000	0.00	80	1.000000000000	N
147	CO	2101900005	019	00005	055	2	10200401	1.000000000000	0.00	80	1.000000000000	N
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
134	N	1	1	27393.00	F	25	7	52	75.26	13.700000000000	187.64	0.52
135	N	1	1	64.00	F	25	7	52	0.18	84.000000000000	2.69	0.01
136	N	1	1	106.00	F	25	7	52	0.29	84.000000000000	4.45	0.01
137	N	1	1	13497.00	F	25	7	52	37.08	13.700000000000	92.45	0.25
138	N	1	1	93.00	F	25	7	52	0.26	5.000000000000	0.23	0.00
139	N	1	1	120.00	F	25	7	52	0.33	84.000000000000	5.04	0.01
140	N	1	1	4740.00	F	25	7	52	13.02	13.700000000000	32.47	0.09
141	N	1	1	248.00	F	25	7	52	0.68	5.000000000000	0.62	0.00
142	N	1	1	120.00	F	25	7	52	0.33	84.000000000000	5.04	0.01
143	N	1	1	8991.00	F	25	7	52	24.70	13.700000000000	61.59	0.17
144	N	1	1	185.00	F	25	7	52	0.51	5.000000000000	0.46	0.00
145	N	1	1	120.00	F	25	7	52	0.33	84.000000000000	5.04	0.01
146	N	1	1	5954.00	F	25	7	52	16.36	13.700000000000	40.78	0.11
147	N	1	1	55.00	F	25	7	52	0.15	5.000000000000	0.14	0.00

09:20 Tuesday, April 11, 2006 1166

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO2
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

BOYD COUNTY

CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTY=N=Boyd plant_id=00005 MASA1NAME=AK Steel Corp -
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF	
Obs	SULF	UPASH	UPSUL	FUEL P	CONF	ATHU	DWK	WKYR	CPROD	EF	CATNY	CATND	
148	CO	2101900005	019	00005	055	3	10200601	1.00000000000	0.00	80	1.00000000000	N	
149	CO	2101900005	019	00005	056	1	10200601	1.00000000000	0.00	80	1.00000000000	N	
150	CO	2101900005	019	00005	056	2	10200401	1.00000000000	0.00	80	1.00000000000	N	
151	CO	2101900005	019	00005	086	1	30300999	1.00000000000	99.49	80	0.204080000000	N	
152	CO	2101900005	019	00005	087	1	30300999	1.00000000000	99.49	80	0.204080000000	N	
153	CO	2101900005	019	00005	089	2	39000799	1.00000000000	0.00	80	1.00000000000	N	
154	CO	2101900005	019	00005	089	3	10300602	1.00000000000	0.00	80	1.00000000000	N	
155	CO	2101900005	019	00005	100	1	10300602	1.00000000000	0.00	80	1.00000000000	N	
156	CO	2101900005	019	00005	100	2	10300602	1.00000000000	0.00	80	1.00000000000	N	
157	CO	2101900005	019	00005	102	1	10300602	1.00000000000	0.00	80	1.00000000000	N	
158	CO	2101900005	019	00005	102	2	10300602	1.00000000000	0.00	80	1.00000000000	N	
159	CO	2101900005	019	00005	102	3	10300602	1.00000000000	0.00	80	1.00000000000	N	
160	CO	2101900005	019	00005	102	4	10300602	1.00000000000	0.00	80	1.00000000000	N	
161	CO	2101900005	019	00005	102	5	10300602	1.00000000000	0.00	80	1.00000000000	N	
148	N	1	1	97.00	F	25	7	52	0.27	84.00000000000	4.07	0.01	
149	N	1	1	0.00	F	25	7	52	0.00	84.00000000000	0.00	0.00	
150	N	1	1	0.00	F	25	7	52	0.00	5.00000000000	0.00	0.00	
151	N	1	1	1096396.00	F	25	7	3012.08	147.24000000000	16472.66	45.25		
152	N	1	1	1155512.00	F	25	7	52	3174.48	147.24000000000	17360.84	47.69	
153	N	1	1	14.40	F	25	7	52	0.04	12.60000000000	0.09	0.00	
154	N	1	1	49.57	F	25	7	52	0.14	84.00000000000	2.08	0.01	
155	N	1	1	219.00	F	25	7	52	0.60	84.00000000000	9.20	0.03	
156	N	1	1	219.00	F	25	7	52	0.60	84.00000000000	9.20	0.03	
157	N	1	1	54.74	F	25	7	52	0.15	84.00000000000	2.30	0.01	
158	N	1	1	54.74	F	25	7	52	0.15	84.00000000000	2.30	0.01	
159	N	1	1	54.74	F	25	7	52	0.15	84.00000000000	2.30	0.01	
160	N	1	1	54.74	F	25	7	52	0.15	84.00000000000	2.30	0.01	
161	N	1	1	54.74	F	25	7	52	0.15	84.00000000000	2.30	0.01	

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA
 BOYD COUNTY

09:20 Tuesday, April 11, 2006 1167

CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00005 MASAINAME=AK Steel Corp -

(continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
162	CO	2101900005	019	00005	102	6	10300602	1.000000000000	0.00	80	1.000000000000	N
163	CO	2101900005	019	00005	111	1	30390024	1.000000000000	.	80	.	N
164	CO	2101900005	019	00005	112	1	39999999	1.000000000000	.	80	.	N
165	CO	2101900005	019	00005	113114	1	10300602	1.000000000000	.	80	.	N

MASAINAME
plant_id

Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
162	N	1	1	54.74	F	25	7	52	0.15	84.000000000000	2.30	0.01
163	N	1	1	0.00	N	25	7	52	0.00	871.540000000000	.	.
164	N	1	1	0.00	N	25	7	52	0.00	0.010000000000	.	.
165	N	1	1	0.00	N	25	7	52	0.00	84.000000000000	.	.

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
166	CO	2101900014	019	00014	011	1	39999999	1.000000000000	.	80	1.000000000000	N
167	CO	2101900014	019	00014	011	2	39000699	1.000000000000	.	80	1.000000000000	N

POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00014 MASAINAME=Calgon Carbon Corp -

Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
166	N	1	1	Y	.	Y	.	Y	.	Y	0.00	0.00
167	N	1	1	Y	.	Y	.	Y	.	Y	0.00	0.00

09:20 Tuesday, April 11, 2006 1168

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO2
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

BOYD COUNTY

CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00014 MASAINAME=Calgon Carbon Corp
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	SCC	INC	CTEFF	RE	CTEFFX	ASHF
168	CO	2101900014	019	00014	012	1	39000699	1.0000000000	-	80	1.0000000000	N
169	CO	2101900014	019	00014	014	1	39999999	1.0000000000	-	80	1.0000000000	N
170	CO	2101900014	019	00014	014	2	39000699	1.0000000000	-	80	1.0000000000	N
171	CO	2101900014	019	00014	021	1	39999999	1.0000000000	-	80	1.0000000000	N
172	CO	2101900014	019	00014	021	2	39000699	1.0000000000	-	80	1.0000000000	N
173	CO	2101900014	019	00014	026	2	39000699	1.0000000000	0	80	1.0000000000	N
174	CO	2101900014	019	00014	031	1	30199999	1.0000000000	-	80	1.0000000000	N
175	CO	2101900014	019	00014	031	2	39000599	1.0000000000	-	80	1.0000000000	N
176	CO	2101900014	019	00014	031	3	39000699	1.0000000000	-	80	1.0000000000	N
177	CO	2101900014	019	00014	032	1	39000699	1.0000000000	-	80	1.0000000000	N
178	CO	2101900014	019	00014	034	1	39999999	1.0000000000	-	80	1.0000000000	N
179	CO	2101900014	019	00014	034	2	39000699	1.0000000000	-	80	1.0000000000	N
180	CO	2101900014	019	00014	039	1	39999999	1.0000000000	-	80	1.0000000000	N
181	CO	2101900014	019	00014	039	2	39000599	1.0000000000	-	80	1.0000000000	N
Obs	SULF	UPASH	UPSUL	FUELTP	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
168	N	1	1	Y	Y	-	-	-	-	0.00	0.00	
169	N	1	1	Y	Y	-	-	-	-	0.00	0.00	
170	N	1	1	Y	Y	-	-	-	-	0.00	0.00	
171	N	1	1	Y	Y	-	-	-	-	0.00	0.00	
172	N	1	1	Y	Y	-	-	-	-	0.00	0.00	
173	N	1	1	F	25	7	52	0.17308	35.0000000000	1.10	0.00	
174	N	1	1	Y	Y	-	-	-	-	4.61	0.01	
175	N	1	1	Y	Y	-	-	-	-	0.00	0.00	
176	N	1	1	Y	Y	-	-	-	-	2.52	0.01	
177	N	1	1	Y	Y	-	-	-	-	0.61	0.00	
178	N	1	1	Y	Y	-	-	-	-	2.46	0.01	
179	N	1	1	Y	Y	-	-	-	-	0.18	0.00	
180	N	1	1	Y	Y	-	-	-	-	4.46	0.01	
181	N	1	1	Y	Y	-	-	-	-	0.00	0.00	

CO₂ PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

POLLN=CO AREA=Huntington-Ashland CNTY_CODE=019 COUNTYN=Boyd plant_id=00014 MASA1NAME=Calgon Carbon Corp

(continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
182	CO	2101900014	019	00014	039	3	39000699	1.00000000000	-	80	1.00000000000	N
183	CO	2101900014	019	00014	040	1	39000599	1.00000000000	-	80	1.00000000000	N
184	CO	2101900014	019	00014	040	2	39000689	1.00000000000	-	80	1.00000000000	N
185	CO	2101900014	019	00014	042	1	39999999	1.00000000000	-	80	1.00000000000	N
186	CO	2101900014	019	00014	042	2	39000699	1.00000000000	-	80	1.00000000000	N
187	CO	2101900014	019	00014	045	1	30199999	1.00000000000	-	80	1.00000000000	N
188	CO	2101900014	019	00014	045	2	39000699	1.00000000000	-	80	1.00000000000	N
189	CO	2101900014	019	00014	064	1	10200602	1.00000000000	0	80	1.00000000000	N

MASAINAME

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

09:20 Tuesday, April 11, 2006 1170

BOYD COUNTY
 CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

- POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00016 MASAINAME=Marathon Petroleum Co LLC - Marine Repair Terminal --

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
190	CO	2101900016	019	00016	002	3	10200501	1.0000000000	0	80	1.0000000000	N
191	CO	2101900016	019	00016	002	4	10200602	1.0000000000	0	80	1.0000000000	N
192	CO	2101900016	019	00016	003	2	10200501	1.0000000000	0	80	1.0000000000	N
193	CO	2101900016	019	00016	003	3	10200602	1.0000000000	0	80	1.0000000000	N
194	CO	2101900016	019	00016	017	4	10200602	1.0000000000	0	80	1.0000000000	N

MASAINAME
 plant_id

Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
190	N	1	1	0.0	F	25	7	20	0.0000	5.0000000000	0.00	0.00
191	N	1	1	31.7	F	25	7	20	0.22643	84.0000000000	1.33	0.01
192	N	1	1	0.0	F	25	7	26	0.0000	5.0000000000	0.00	0.00
193	N	1	1	13.6	F	25	7	26	0.07473	84.0000000000	0.57	0.00
194	N	1	1	17.5	F	25	7	52	0.04808	84.0000000000	0.74	0.00

MASAINAME
 plant_id

- POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00020 MASAINAME=KES Acquisition Co LLC -----

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
195	CO	2101900020	019	00020	002	1	30300908	1.0000000000	0	80	1.0000000000	N
195	N	1	1	70395.0	F	50	4	26	1353.75	2.0000000000	70.40	1.35

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA
 BOYD COUNTY

09:20 Tuesday, April 11, 2006 1171

CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00020 MASAINAME=KES Acquisition Co LLC -----
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEAFX	ASHF
196	CO	2101900020	019	00020	002	2	39000699	1.000000000000	0	80	1.000000000000	N
197	CO	2101900020	019	00020	002	3	39000699	1.000000000000	0	80	1.000000000000	N
198	CO	2101900020	019	00020	003	1	30300908	1.000000000000	0	80	1.000000000000	N
199	CO	2101900020	019	00020	004	1	39000699	1.000000000000	0	80	1.000000000000	N
200	CO	2101900020	019	00020	004	2	39000599	1.000000000000	0	80	1.000000000000	N
201	CO	2101900020	019	00020	004	3	39000599	1.000000000000	0	80	1.000000000000	N
202	CO	2101900020	019	00020	005	1	39000699	1.000000000000	0	80	1.000000000000	N

MASAINAME
 plant_id

Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
196	N	1	1	188.7	F	50	4	26	3.63	35.0000000000	3.30	0.06
197	N	1	1	43.8	F	50	4	26	0.84	35.0000000000	0.77	0.01
198	N	1	1	70395.0	F	50	4	26	1353.75	0.060000000000	2.11	0.04
199	N	1	1	293.0	F	25	5	48	1.22	40.0220000000	5.86	0.02
200	N	1	1	0.0	F	25	5	48	0.00	5.0000000000	0.00	0.00
201	N	1	1	0.0	F	25	5	48	0.00	3.2000000000	0.00	0.00
202	N	1	1	11.0	F	50	4	26	0.21	24.1900000000	0.13	0.00

MASAINAME
 plant_id

MASAINAME	82.57
plant_id	1.48

82.57

1.48

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMI NS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

09:20 Tuesday, April 11, 2006 1172

BOYD COUNTY
 CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)
 POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00027 MASAINAME=AK Steel Corp - Coke Plant ...

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
203	CO	2101900027	019	00027	006	1	30300302	1.000000000000	99.98	80	0.200160000000	N
204	CO	2101900027	019	00027	008	1	30300308	1.000000000000	99.84	80	0.201280000000	N
205	CO	2101900027	019	00027	009	1	30300306	1.000000000000	0.00	80	1.000000000000	N
206	CO	2101900027	019	00027	010	1	30300303	1.000000000000	0.00	80	1.000000000000	N
207	CO	2101900027	019	00027	012	1	30300302	1.000000000000	99.99	80	0.200080000000	N
208	CO	2101900027	019	00027	014	1	30300399	1.000000000000	99.91	80	0.200720000000	N
209	CO	2101900027	019	00027	015	1	30300306	1.000000000000	0.00	80	1.000000000000	N
210	CO	2101900027	019	00027	016	1	30300303	1.000000000000	0.00	80	1.000000000000	N
211	CO	2101900027	019	00027	019	2	39000702	1.000000000000	0.00	80	1.000000000000	N
212	CO	2101900027	019	00027	019	3	10200601	1.000000000000	0.00	80	1.000000000000	N
213	CO	2101900027	019	00027	020	1	10200707	1.000000000000	0.00	80	1.000000000000	N
214	CO	2101900027	019	00027	020	3	10200601	1.000000000000	0.00	80	1.000000000000	N
215	CO	2101900027	019	00027	021	1	10200707	1.000000000000	0.00	80	1.000000000000	N
216	CO	2101900027	019	00027	021	3	10200601	1.000000000000	0.00	80	1.000000000000	N
217	CO	2101900027	019	00027	022	1	10200707	1.000000000000	0.00	80	1.000000000000	N
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
203	N	1	1	374951.00	F	25	7	52	1030.09	0.600000000000	22.52	0.06
204	N	1	1	374951.00	F	25	7	52	1030.09	0.600000000000	22.64	0.06
205	N	1	1	374951.00	F	25	7	52	1030.09	0.700000000000	131.23	0.36
206	N	1	1	374951.00	F	25	7	52	1030.09	0.093000000000	17.44	0.05
207	N	1	1	836080.00	F	25	7	52	2296.92	0.600000000000	50.18	0.14
208	N	1	1	836080.00	F	25	7	52	2296.92	0.600000000000	50.35	0.14
209	N	1	1	836080.00	F	25	7	52	2296.92	0.700000000000	292.63	0.80
210	N	1	1	836080.00	F	25	7	52	2296.92	0.093000000000	38.88	0.11
211	N	1	1	119.00	F	25	7	52	0.33	18.400000000000	1.09	0.00
212	N	1	1	27.70	F	25	7	52	0.08	40.000000000000	0.55	0.00
213	N	1	1	1631.00	F	25	7	52	4.48	18.400000000000	15.01	0.04
214	N	1	1	2.27	F	25	7	52	0.01	84.000000000000	0.10	0.00
215	N	1	1	1628.00	F	25	7	52	4.47	18.400000000000	14.98	0.04
216	N	1	1	2.09	F	25	7	52	0.01	84.000000000000	0.09	0.00
217	N	1	1	1694.00	F	25	7	52	4.65	18.400000000000	15.58	0.04

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

09:20 Tuesday, April 11, 2006 1173

CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00027 MASAINAME=AK Steel Corp - Coke Plant -----
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
218	CO	2101900027	019	00027	022	3	10200601	1.000000000000	0.00	80	1.000000000000	N
219	CO	2101900027	019	00027	023	1	39000702	1.000000000000	0.00	80	1.000000000000	N
220	CO	2101900027	019	00027	023	3	10200601	1.000000000000	0.00	80	1.000000000000	N
221	CO	2101900027	019	00027	024	1	39000702	1.000000000000	0.00	80	1.000000000000	N
222	CO	2101900027	019	00027	026	1	39000702	1.000000000000	0.00	80	1.000000000000	N
223	CO	2101900027	019	00027	026	2	10200602	1.000000000000	0.00	80	1.000000000000	N
224	CO	2101900027	019	00027	027	1	30190099	1.000000000000	0.00	80	1.000000000000	N
225	CO	2101900027	019	00027	043	1	10300601	1.000000000000	0.00	80	1.000000000000	N

MASAINAME
 plant_id

Obs	SULF	UPASH	UPSUL	FUEL P	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
218	N	1	1	2.42	F	25	7	52	0.01	84.0000000000	0.10	0.00
219	N	1	1	0.00	F	25	7	52	0.00	18.4000000000	0.00	0.00
220	N	1	1	17.24	F	25	7	52	0.05	84.0000000000	0.72	0.00
221	N	1	1	681.00	F	25	7	52	1.87	18.4000000000	6.27	0.02
222	N	1	1	459.00	F	40	7	34	3.09	22.6900000000	5.21	0.04
223	N	1	1	1.75	F	40	7	34	0.01	84.0000000000	0.07	0.00
224	N	1	1	3.51	F	25	1	1	3.51	21.0000000000	0.04	0.04
225	N	1	1	0.00	F	25	7	52	0.00	84.0000000000	0.00	0.00

MASAINAME
 plant_id

685.68
 685.68
 1.94
 1.94

09:20 Tuesday, April 11, 2006 1174

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)
 POLLN=CO AREA=Huntington-Ashland county_code=019 COUNTYN=Boyd plant_id=00106 MASAINAME=TN Gas Pipeline - Station 114 -

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	SCC	INC	CTEFF	RE	CTEFFX	ASHF
226	CO	2101900106	019	00106	004	1	20200202	1.000000000000	0	80	1.000000000000	N
227	CO	2101900106	019	00106	004	2	20200202	1.000000000000	0	80	1.000000000000	N
228	CO	2101900106	019	00106	004	3	20200202	1.000000000000	0	80	1.000000000000	N
229	CO	2101900106	019	00106	004	4	20200202	1.000000000000	0	80	1.000000000000	N
230	CO	2101900106	019	00106	004	5	20200202	1.000000000000	0	80	1.000000000000	N
231	CO	2101900106	019	00106	004	6	20200202	1.000000000000	0	80	1.000000000000	N
232	CO	2101900106	019	00106	004	7	20200202	1.000000000000	0	80	1.000000000000	N
233	CO	2101900106	019	00106	005	1	20200201	1.000000000000	0	80	1.000000000000	N
234	CO	2101900106	019	00106	005	2	20200201	1.000000000000	0	80	1.000000000000	N
235	CO	2101900106	019	00106	005	3	20200201	1.000000000000	0	80	1.000000000000	N

MASAINAME
 plant_id
 COUNTYN

Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
226	N	1	1	0.2700	F	0	7	52	0	184.0000000000	0.02	0.00
227	N	1	1	0.0849	F	0	7	52	0	184.0000000000	0.01	0.00
228	N	1	1	0.1252	F	0	7	52	0	184.0000000000	0.01	0.00
229	N	1	1	0.1402	F	0	7	52	0	184.0000000000	0.01	0.00
230	N	1	1	0.3521	F	0	7	52	0	184.0000000000	0.03	0.00
231	N	1	1	0.3164	F	0	7	52	0	181.0000000000	0.03	0.00
232	N	1	1	0.3164	F	0	7	52	0	181.0000000000	0.03	0.00
233	N	1	1	0.0000	F	25	7	52	0	214.5370000000	0.00	0.00
234	N	1	1	0.0000	F	25	7	52	0	2354.8400000000	0.00	0.00
235	N	1	1	0.0000	F	25	7	52	0	552.6320000000	0.00	0.00

MASAINAME
 plant_id
 COUNTYN

MASAINAME	0.14	0.00
plant_id	0.14	0.00
COUNTYN	38014.03	101.97

09:20 Tuesday, April 11, 2006 1175

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO2
KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

BOYD COUNTY
CO PROCESS LEVEL EMISSIONS PER YEAR (CTPY) AND SUMMER DAY (CTND)

POLLN=CO AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00106 MASAINAME=TN Gas Pipeline - Station 114
(continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
cnty_code	AREA	POLLN										

Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	CPROD	EF	CATNY	CATND
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
cnty_code	AREA	POLLN										

38014.03 101.97
38014.03 101.97
38014.03 101.97
===== 101.97

○

○

2002 NO₂ Point Source Emissions for Boyd County

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE MUNICIPALITY-ASHLAND AREA

BOYD COUNTY

NO₂ PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

- POLLN=NO₂ AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASAINAME=Marathon Petroleum Co LLC - Catlettsburg Refining --

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
1	NO2	2101900004	019	00004	001	1	30600103	1.000000000000	0	80	1.000000000000	N
2	NO2	2101900004	019	00004	001	2	30600104	1.000000000000	0	80	1.000000000000	N
3	NO2	2101900004	019	00004	002	1	30600105	1.000000000000	0	80	1.000000000000	N
4	NO2	2101900004	019	00004	003	1	10200701	1.000000000000	0	80	1.000000000000	N
5	NO2	2101900004	019	00004	004	1	30600103	1.000000000000	0	80	1.000000000000	N
6	NO2	2101900004	019	00004	004	2	30600104	1.000000000000	0	80	1.000000000000	N
7	NO2	2101900004	019	00004	005	1	30600103	1.000000000000	0	80	1.000000000000	N
8	NO2	2101900004	019	00004	005	2	30600104	1.000000000000	0	80	1.000000000000	N
9	NO2	2101900004	019	00004	006	1	30600103	1.000000000000	0	80	1.000000000000	N
10	NO2	2101900004	019	00004	006	2	30600104	1.000000000000	0	80	1.000000000000	N
11	NO2	2101900004	019	00004	007	1	30600104	1.000000000000	0	80	1.000000000000	N
12	NO2	2101900004	019	00004	007	2	30600103	1.000000000000	0	80	1.000000000000	N
13	NO2	2101900004	019	00004	008	1	30600103	1.000000000000	0	80	1.000000000000	N
14	NO2	2101900004	019	00004	008	2	30600104	1.000000000000	0	80	1.000000000000	N
15	NO2	2101900004	019	00004	009	1	30600104	1.000000000000	0	80	1.000000000000	N

Obs	SULF	UPASH	UPSUL	FUEL P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATMY	NATND
1	N	1	1	0	F	0	7	52	0.00000	55.000000000000	0.00	0.00
2	N	1	1	20	F	0	7	52	0.00000	140.000000000000	1.40	0.00
3	N	1	1	508	F	32	7	52	1.78637	100.000000000000	25.40	0.09
4	N	1	1	67	F	34	7	52	0.25033	140.000000000000	4.69	0.02
5	N	1	1	0	F	24	7	52	0.00000	55.000000000000	0.00	0.00
6	N	1	1	192	F	24	7	52	0.50637	140.000000000000	13.44	0.04
7	N	1	1	0	F	0	7	52	0.00000	55.000000000000	0.00	0.00
8	N	1	1	0	F	0	7	52	0.00000	140.000000000000	0.00	0.00
9	N	1	1	0	F	0	7	52	0.00000	55.000000000000	0.00	0.00
10	N	1	1	0	F	0	7	52	0.00000	140.000000000000	0.00	0.00
11	N	1	1	475	F	33	7	52	1.72253	140.000000000000	33.25	0.12
12	N	1	1	0	F	33	7	52	0.00000	55.000000000000	0.00	0.00
13	N	1	1	0	F	28	7	52	0.00000	55.000000000000	0.00	0.00
14	N	1	1	621	F	28	7	52	1.91077	140.000000000000	43.47	0.13
15	N	1	1	2	F	25	7	52	0.00549	140.000000000000	0.14	0.00

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

09:20 Tuesday, April 11, 2006 1135

NO2 PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)
 BOYD COUNTY

- POLLN=NO2 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASAENAME=Marathon Petroleum Co LLC - Catlettsburg Refining --
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
16	N02	2101900004	019	00004	010	1	30600104	1.00000000000	0	80	1.00000000000	N
17	N02	2101900004	019	00004	011	1	10200401	1.00000000000	.	80	1.00000000000	N
18	N02	2101900004	019	00004	011	2	10200701	1.00000000000	.	80	1.00000000000	N
19	N02	2101900004	019	00004	012	1	10200401	1.00000000000	0	80	1.00000000000	N
20	N02	2101900004	019	00004	012	2	10200701	1.00000000000	0	80	1.00000000000	N
21	N02	2101900004	019	00004	013	1	30600104	1.00000000000	0	80	1.00000000000	N
22	N02	2101900004	019	00004	014	1	30600104	1.00000000000	0	80	1.00000000000	N
23	N02	2101900004	019	00004	014	2	30600103	1.00000000000	0	80	1.00000000000	N
24	N02	2101900004	019	00004	015	1	30600104	1.00000000000	0	80	1.00000000000	N
25	N02	2101900004	019	00004	015	2	30600103	1.00000000000	0	80	1.00000000000	N
26	N02	2101900004	019	00004	016	1	30600104	1.00000000000	0	80	1.00000000000	N
27	N02	2101900004	019	00004	016	2	30600103	1.00000000000	0	80	1.00000000000	N
28	N02	2101900004	019	00004	017	1	30600104	1.00000000000	0	80	1.00000000000	N
29	N02	2101900004	019	00004	018	1	30600103	1.00000000000	0	80	1.00000000000	N
16	N	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATNY
17	N	N	1	1	2	F	25	7	52	0.00549	140.00000000000	0.14
18	N	N	1	1	.	Y	.	.	.	.	0.00	0.00
19	N	N	1	1	0	F	19	7	52	0.00000	55.00000000000	22.33
20	N	N	1	1	354	F	19	7	52	0.73912	140.00000000000	24.78
21	N	N	1	1	112	F	29	7	52	0.35692	140.00000000000	7.84
22	N	N	1	1	88	F	27	7	52	0.26110	140.00000000000	6.16
23	N	N	1	1	0	F	27	7	52	0.00000	55.00000000000	0.00
24	N	N	1	1	177	F	24	7	40	0.60686	140.00000000000	12.39
25	N	N	1	1	0	F	24	7	40	0.00000	55.00000000000	0.00
26	N	N	1	1	347	F	29	7	52	1.10582	140.00000000000	24.29
27	N	N	1	1	0	F	29	7	52	0.00000	55.00000000000	0.00
28	N	N	1	1	142	F	27	7	52	0.42132	140.00000000000	9.94
29	N	N	1	1	0	F	27	7	52	0.00000	55.00000000000	0.00

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA
 BOYD COUNTY

NO₂ PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

(continued)

- POLLN=NO2 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASAINAME=Marathon Petroleum Co LLC - Catlettsburg Refining --

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
30	NO2	2101900004	019	00004	018	2	30600104	1.000000000000	0	80	1.000000000000	N
31	NO2	2101900004	019	00004	019	1	30600104	1.000000000000	0	80	1.000000000000	N
32	NO2	2101900004	019	00004	020	1	30600104	1.000000000000	0	80	1.000000000000	N
33	NO2	2101900004	019	00004	021	1	30600104	1.000000000000	0	80	1.000000000000	N
34	NO2	2101900004	019	00004	022	1	30600104	1.000000000000	0	80	1.000000000000	N
35	NO2	2101900004	019	00004	023	1	30600104	1.000000000000	0	80	1.000000000000	N
36	NO2	2101900004	019	00004	024	1	30600103	1.000000000000	0	80	1.000000000000	N
37	NO2	2101900004	019	00004	024	2	30600104	1.000000000000	0	80	1.000000000000	N
38	NO2	2101900004	019	00004	025	1	30600103	1.000000000000	0	80	1.000000000000	N
39	NO2	2101900004	019	00004	025	2	30600104	1.000000000000	0	80	1.000000000000	N
40	NO2	2101900004	019	00004	026	1	30600103	1.000000000000	0	80	1.000000000000	N
41	NO2	2101900004	019	00004	026	2	30600104	1.000000000000	0	80	1.000000000000	N
42	NO2	2101900004	019	00004	027	1	30600103	1.000000000000	0	80	1.000000000000	N
43	NO2	2101900004	019	00004	027	2	30600104	1.000000000000	0	80	1.000000000000	N
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATNY	NATND
30	N	1	1	69	F	27	7	52	0.20473	140.000000000000	4.83	0.01
31	N	1	1	0	F	0	7	52	0.00000	140.000000000000	0.00	0.00
32	N	1	1	0	F	0	7	44	0.00000	140.000000000000	0.00	0.00
33	N	1	1	0	F	0	7	44	0.00000	140.000000000000	0.00	0.00
34	N	1	1	0	F	0	7	44	0.00000	140.000000000000	0.00	0.00
35	N	1	1	0	F	0	7	44	0.00000	140.000000000000	0.00	0.00
36	N	1	1	0	F	28	7	52	0.00000	55.000000000000	0.00	0.00
37	N	1	1	342	F	28	7	52	1.05231	140.000000000000	23.94	0.07
38	N	1	1	0	F	30	7	52	0.00000	55.000000000000	0.00	0.00
39	N	1	1	143	F	30	7	52	0.47143	140.000000000000	10.01	0.03
40	N	1	1	0	F	25	7	52	0.00000	55.000000000000	0.00	0.00
41	N	1	1	558	F	25	7	52	1.53297	140.000000000000	39.06	0.11
42	N	1	1	0	F	26	7	52	0.00000	55.000000000000	0.00	0.00
43	N	1	1	133	F	26	7	52	0.38000	140.000000000000	9.31	0.03

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMIS. IS OF VOC, CO, AND NO2
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

09:20 Tuesday, April 11, 2006 1137

NO2 PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)
 BOYD COUNTY

- POLLN=NO2 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASA1NAME=Marathon Petroleum Co LLC - Catlettsburg Refining --
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	SCC	INC	CTEFF	RE	CTEFFX	ASHF
Obs	UPASH	FUEL_P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATND	NATNY		
44	NO2	2101900004	019	00004	028	1	30600103	1.00000000000	0	80	1.00000000000	N
45	NO2	2101900004	019	00004	028	2	30600104	1.00000000000	0	80	1.00000000000	N
46	NO2	2101900004	019	00004	029	1	30600104	1.00000000000	0	80	1.00000000000	N
47	NO2	2101900004	019	00004	029	2	30600103	1.00000000000	0	80	1.00000000000	N
48	NO2	2101900004	019	00004	030	1	30600104	1.00000000000	0	80	1.00000000000	N
49	NO2	2101900004	019	00004	031	1	30600104	1.00000000000	0	80	1.00000000000	N
50	NO2	2101900004	019	00004	032	1	30600103	1.00000000000	0	80	1.00000000000	N
51	NO2	2101900004	019	00004	032	2	30600104	1.00000000000	0	80	1.00000000000	N
52	NO2	2101900004	019	00004	033	2	30600105	1.00000000000	0	80	1.00000000000	N
53	NO2	2101900004	019	00004	035	2	30600105	1.00000000000	0	80	1.00000000000	N
54	NO2	2101900004	019	00004	036	2	30600105	1.00000000000	0	80	1.00000000000	N
55	NO2	2101900004	019	00004	038	1	30600103	1.00000000000	0	80	1.00000000000	N
56	NO2	2101900004	019	00004	038	2	30600104	1.00000000000	0	80	1.00000000000	N
57	NO2	2101900004	019	00004	039	1	30600103	1.00000000000	0	80	1.00000000000	N
44	N	1	1	0	F	24	7	52	0.00000	55.0000000000	0.00	0.00
45	N	1	1	469	F	24	7	52	1.23692	140.0000000000	32.83	0.09
46	N	1	1	2178	F	25	7	52	5.98352	225.0000000000	245.03	0.67
47	N	1	1	0	F	25	7	52	0.00000	55.0000000000	0.00	0.00
48	N	1	1	398	F	28	7	52	1.22462	140.0000000000	27.86	0.09
49	N	1	1	842	F	34	7	52	3.14593	71.0000000000	29.89	0.11
50	N	1	1	0	F	0	7	52	0.00000	55.0000000000	0.00	0.00
51	N	1	1	0	F	0	7	52	0.00000	140.0000000000	0.00	0.00
52	N	1	1	606	F	40	7	52	2.66374	70.0000000000	21.21	0.09
53	N	1	1	1221	F	32	7	52	4.29363	70.0000000000	42.74	0.15
54	N	1	1	1243	F	31	7	52	4.23440	70.0000000000	43.51	0.15
55	N	1	1	0	F	0	7	52	0.00000	55.0000000000	0.00	0.00
56	N	1	1	0	F	0	7	52	0.00000	140.0000000000	0.00	0.00
57	N	1	1	0	F	0	7	52	0.00000	55.0000000000	0.00	0.00

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

09:20 Tuesday, April 11, 2006 1138

NO₂ PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

- POLLN=NO₂ AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=000004 MASATNAME=Marathon Petroleum Co LLC - Catlettsburg Refining -- (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
58	N02	2101900004	019	00004	039	2	30600104	1.000000000000	0	80	1.000000000000	N
59	N02	2101900004	019	00004	040	1	30600103	1.000000000000	0	80	1.000000000000	N
60	N02	2101900004	019	00004	040	2	30600104	1.000000000000	0	80	1.000000000000	N
61	N02	2101900004	019	00004	041	1	30600103	1.000000000000	0	80	1.000000000000	N
62	N02	2101900004	019	00004	042	1	30600103	1.000000000000	0	80	1.000000000000	N
63	N02	2101900004	019	00004	042	2	30600104	1.000000000000	0	80	1.000000000000	N
64	N02	2101900004	019	00004	043	1	30600103	1.000000000000	0	80	1.000000000000	N
65	N02	2101900004	019	00004	043	2	30600104	1.000000000000	0	80	1.000000000000	N
66	N02	2101900004	019	00004	044	1	30600103	1.000000000000	0	80	1.000000000000	N
67	N02	2101900004	019	00004	044	2	30600104	1.000000000000	0	80	1.000000000000	N
68	N02	2101900004	019	00004	045	1	30600103	1.000000000000	0	80	1.000000000000	N
69	N02	2101900004	019	00004	045	2	30600104	1.000000000000	0	80	1.000000000000	N
70	N02	2101900004	019	00004	047	1	30600105	1.000000000000	0	80	1.000000000000	N
71	N02	2101900004	019	00004	048	1	30600104	1.000000000000	0	80	1.000000000000	N
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATNY	NATND
58	N	1	1	0	F	0	7	52	0.000	140.000000000000	0.00	0.00
59	N	1	1	0	F	0	7	52	0.000	55.000000000000	0.00	0.00
60	N	1	1	0	F	0	7	52	0.000	140.000000000000	0.00	0.00
61	N	1	1	0	F	30	7	52	0.000	55.000000000000	0.00	0.00
62	N	1	1	0	F	26	7	52	0.000	55.000000000000	0.00	0.00
63	N	1	1	124	F	26	7	52	0.354	140.000000000000	8.68	0.02
64	N	1	1	0	F	25	7	52	0.000	55.000000000000	0.00	0.00
65	N	1	1	131	F	25	7	52	0.360	140.000000000000	9.17	0.03
66	N	1	1	0	F	28	7	52	0.000	55.000000000000	0.00	0.00
67	N	1	1	625	F	28	7	52	1.923	140.000000000000	43.75	0.13
68	N	1	1	0	F	26	7	52	0.000	55.000000000000	0.00	0.00
69	N	1	1	21	F	26	7	52	0.060	140.000000000000	1.47	0.00
70	N	1	1	340	F	31	7	52	1.158	100.000000000000	17.00	0.06
71	N	1	1	0	F	0	7	52	0.000	140.000000000000	0.00	0.00

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA
 BOYD COUNTY

09:20 Tuesday, April 11, 2006 1139

NO₂ PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

- POLLN=NO₂ AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASATINAME=Marathon Petroleum Co LLC - Catlettsburg Refining -- (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	SCC	INC	CTEFF	RE	CTEFFX	ASHF
72	NO2	2101900004	019	00004	049	1	30600104	1.000000000000	0	80	1.000000000000	N
73	NO2	2101900004	019	00004	050	1	30600104	1.000000000000	0	80	1.000000000000	N
74	NO2	2101900004	019	00004	050	2	30600104	1.000000000000	0	80	1.000000000000	N
75	NO2	2101900004	019	00004	051	1	30600104	1.000000000000	0	80	1.000000000000	N
76	NO2	2101900004	019	00004	052	1	30600104	1.000000000000	0	80	1.000000000000	N
77	NO2	2101900004	019	00004	052	2	30600104	1.000000000000	0	80	1.000000000000	N
78	NO2	2101900004	019	00004	053	2	30600105	1.000000000000	0	80	1.000000000000	N
79	NO2	2101900004	019	00004	054	2	30600105	1.000000000000	0	80	1.000000000000	N
80	NO2	2101900004	019	00004	055	2	30600105	1.000000000000	0	80	1.000000000000	N
81	NO2	2101900004	019	00004	056	1	30600105	1.000000000000	0	80	1.000000000000	N
82	NO2	2101900004	019	00004	057	1	30600105	1.000000000000	0	80	1.000000000000	N
83	NO2	2101900004	019	00004	058	1	30600104	1.000000000000	0	80	1.000000000000	N
84	NO2	2101900004	019	00004	058	2	30103202	1.000000000000	0	80	1.000000000000	N
85	NO2	2101900004	019	00004	060	1	102000401	1.000000000000	0	80	1.000000000000	N
Obs	SULF	UPASH	UPSUL	FUEL P	CONF	ATHJ	DMK	WKYR	NPROD	EF	NATND	
72	N	1	1	618	F	30	7	52	2.037	140.0000000000	43.26	0.14
73	N	1	1	751	F	31	7	52	2.558	140.0000000000	52.57	0.18
74	N	1	1	0	F	31	7	52	0.000	140.0000000000	0.00	0.00
75	N	1	1	1038	F	32	7	52	3.650	140.0000000000	72.66	0.26
76	N	1	1	537	F	31	7	52	1.829	140.0000000000	37.59	0.13
77	N	1	1	212	F	31	7	52	0.722	140.0000000000	14.84	0.05
78	N	1	1	154	F	33	7	52	0.558	100.0000000000	7.70	0.03
79	N	1	1	190	F	35	7	52	0.731	100.0000000000	9.50	0.04
80	N	1	1	309	F	32	7	52	1.087	100.0000000000	15.45	0.05
81	N	1	1	701	F	30	7	52	2.311	45.0000000000	15.77	0.05
82	N	1	1	669	F	28	7	52	2.058	45.0000000000	15.05	0.05
83	N	1	1	112	F	23	7	52	0.283	140.0000000000	7.84	0.02
84	N	1	1	43724	F	23	7	52	110.511	0.0000000000	0.00	0.00
85	N	1	1	0	F	0	7	26	0.000	55.0000000000	0.00	0.00

09:20 Tuesday, April 11, 2006 1140

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

BOYD COUNTY

NO₂ PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

- POLLN=NO2 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASAENAME=Marathon Petroleum Co LLC - Catlettsburg Refining --
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
86	NO2	2101900004	019	00004	060	2	10200701	1.000000000000	0.0	80	1.000000000000	N
87	NO2	2101900004	019	00004	061	1	10200401	1.000000000000	0.0	80	1.000000000000	N
88	NO2	2101900004	019	00004	061	2	10200701	1.000000000000	0.0	80	1.000000000000	N
89	NO2	2101900004	019	00004	062	1	10200401	1.000000000000	0.0	80	1.000000000000	N
90	NO2	2101900004	019	00004	062	2	10200701	1.000000000000	0.0	80	1.000000000000	N
91	NO2	2101900004	019	00004	063	1	10200401	1.000000000000	0.0	80	1.000000000000	N
92	NO2	2101900004	019	00004	063	2	10200701	1.000000000000	0.0	80	1.000000000000	N
93	NO2	2101900004	019	00004	064	1	30600201	1.000000000000	0.0	80	1.000000000000	N
94	NO2	2101900004	019	00004	064	2	10200401	1.000000000000	0.0	80	1.000000000000	N
95	NO2	2101900004	019	00004	064	3	10200601	1.000000000000	0.0	80	1.000000000000	N
96	NO2	2101900004	019	00004	065	1	30600103	1.000000000000	0.0	80	1.000000000000	N
97	NO2	2101900004	019	00004	065	2	30600104	1.000000000000	0.0	80	1.000000000000	N
98	NO2	2101900004	019	00004	066	1	30600104	1.000000000000	.	80	1.000000000000	N
99	NO2	2101900004	019	00004	068	1	30699999	1.000000000000	0.0	80	1.000000000000	N
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATNY	NATND
86	N	1	1	0.00	F	0	7	26	0.00	140.0000000000	0.00	0.00
87	N	1	1	0.00	F	26	7	52	0.00	55.0000000000	0.00	0.00
88	N	1	1	2024.00	F	26	7	52	5.78	310.0000000000	313.72	0.90
89	N	1	1	0.00	F	26	7	52	0.00	55.0000000000	0.00	0.00
90	N	1	1	442.00	F	26	7	52	1.26	140.0000000000	30.94	0.09
91	N	1	1	0.00	F	23	7	52	0.00	55.0000000000	0.00	0.00
92	N	1	1	432.00	F	23	7	52	1.09	140.0000000000	30.24	0.08
93	N	1	1	1053.00	F	0	7	52	0.00	71.0000000000	37.38	0.00
94	N	1	1	0.00	F	0	7	52	0.00	67.0000000000	0.00	0.00
95	N	1	1	404.00	F	0	7	52	0.00	550.0000000000	111.10	0.00
96	N	1	1	0.00	F	25	7	52	0.00	55.0000000000	0.00	0.00
97	N	1	1	553.00	F	25	7	52	1.52	140.0000000000	38.71	0.11
98	N	1	1	.	Y	.	.	.	.	.	3.01	0.00
99	N	1	1	0.00	F	0	7	52	0.00	0.000000000000	0.00	0.00

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO2
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

09:20 Tuesday, April 11, 2006 1141

NO2 PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

- POLLN=NO2 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASAINAME=Marathon Petroleum Co LLC - Catlettsburg Refining --
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
100	NO2	2101900004	019	00004	069	1	30600104	1.00000000000	0.0	80	1.00000000000	N
101	NO2	2101900004	019	00004	072	1	30600104	1.00000000000	0.0	80	1.00000000000	N
102	NO2	2101900004	019	00004	087	2	39999992	1.00000000000	0.0	80	1.00000000000	N
103	NO2	2101900004	019	00004	087	3	39000489	1.00000000000	0.0	80	1.00000000000	N
104	NO2	2101900004	019	00004	092	1	30103202	1.00000000000	0.0	80	1.00000000000	N
105	NO2	2101900004	019	00004	092	2	10200602	1.00000000000	0.0	80	1.00000000000	N
106	NO2	2101900004	019	00004	094	1	30600106	1.00000000000	0.0	80	1.00000000000	N
107	NO2	2101900004	019	00004	095	1	30600105	1.00000000000	0.0	80	1.00000000000	N
108	NO2	2101900004	019	00004	096	1	30600105	1.00000000000	0.0	80	1.00000000000	N
109	NO2	2101900004	019	00004	097	1	30600105	1.00000000000	0.0	80	1.00000000000	N
110	NO2	2101900004	019	00004	OAP	3	30600106	1.00000000000	0.0	80	1.00000000000	N
111	NO2	2101900004	019	00004	OMT	2	10500106	1.00000000000	0.0	80	1.00000000000	N
112	NO2	2101900004	019	00004	OMU	2	10500106	1.00000000000	0.0	80	1.00000000000	N
113	NO2	2101900004	019	00004	OQK	1	30699999	1.00000000000	0.0	80	1.00000000000	N
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHU	DWK	WKYR	NPROD	EF	NATNY	NATND
100	N	1	1	0.00	F	0	2	52	0.00	140.0000000000	0.00	0.00
101	N	1	1	500.00	F	30	7	52	1.65	122.4010000000	30.60	0.10
102	N	1	1	0.00	F	0	1	1	0.00	118.4000000000	0.00	0.00
103	N	1	1	274.00	F	0	1	1	0.00	55.0000000000	7.54	0.00
104	N	1	1	43724.00	F	26	7	52	124.93	0.0000000000	0.00	0.00
105	N	1	1	130.00	F	26	7	52	0.37	140.0000000000	9.10	0.03
106	N	1	1	211.00	F	26	7	52	0.60	140.0000000000	14.77	0.04
107	N	1	1	219.00	F	29	7	52	0.70	43.5000000000	4.76	0.02
108	N	1	1	220.00	F	28	7	52	0.68	43.5000000000	4.79	0.01
109	N	1	1	684.00	F	30	7	52	2.25	43.5000000000	14.88	0.05
110	N	1	1	8.00	F	26	7	52	0.02	100.0000000000	0.40	0.00
111	N	1	1	0.87	F	8	7	52	0.00	140.0300000000	0.06	0.00
112	N	1	1	0.34	F	0	7	52	0.00	140.0300000000	0.02	0.00
113	N	1	1	4978343.00	F	25	7	52	13676.77	0.0000000000	0.00	0.00

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO2
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA
 BOYD COUNTY

NO2 PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

- POLLN=NO2 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASAENAME=Marathon Petroleum Co LLC - Catlettsburg Refining --
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
114	N02	2101900004	019	00004	0QL	1	30699999	1.0000000000	0.0	80	1.0000000000	N
115	N02	2101900004	019	00004	0QR	1	30600401	1.0000000000	0.0	80	1.0000000000	N
116	N02	2101900004	019	00004	0QS	1	30699999	1.0000000000	0.0	80	1.0000000000	N
117	N02	2101900004	019	00004	0QU	1	30600904	1.0000000000	0.0	80	1.0000000000	N
118	N02	2101900004	019	00004	0QV	1	30699999	1.0000000000	0.0	80	1.0000000000	N
119	N02	2101900004	019	00004	0QX	1	30699998	1.0000000000	0.0	80	1.0000000000	N
120	N02	2101900004	019	00004	0QX	2	39990024	1.0000000000	0.0	80	1.0000000000	N
121	N02	2101900004	019	00004	0W1	1	10200701	1.0000000000	0.0	80	1.0000000000	N
122	N02	2101900004	019	00004	0XA	1	30600106	1.0000000000	76.1	80	0.391200000000	N
123	N02	2101900004	019	00004	0XB	1	30600106	1.0000000000	76.1	80	0.391200000000	N
124	N02	2101900004	019	00004	0XC	1	30600106	1.0000000000	76.1	80	0.391200000000	N
125	N02	2101900004	019	00004	0XD	1	30600106	1.0000000000	76.1	80	0.391200000000	N
126	N02	2101900004	019	00004	0XE	1	30600106	1.0000000000	76.1	80	0.391200000000	N
127	N02	2101900004	019	00004	GP1	1	30600104	1.0000000000	0.0	80	1.0000000000	N
Obs	SULF	UPASH	UPSUL	FUEL P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATY	NATND
114	N	1	1	4978343.00	F	25	7	52	13676.77	0.0000000000	0.00	0.00
115	N	1	1	75801.00	F	29	7	52	241.56	18.9000000000	716.32	2.28
116	N	1	1	0.00	F	0	7	52	0.00	0.0000000000	0.00	0.00
117	N	1	1	0.00	F	0	7	52	0.00	140.0000000000	0.00	0.00
118	N	1	1	144109.00	F	28	7	52	443.41	0.0000000000	0.00	0.00
119	N	1	1	207.00	F	23	7	52	0.52	5.637000000000	0.58	0.00
120	N	1	1	2.00	F	23	7	52	0.01	59.1000000000	0.06	0.00
121	N	1	1	908.00	F	27	7	52	2.69	140.3920000000	63.74	0.19
122	N	1	1	521.00	F	26	7	52	1.49	112.8110000000	11.50	0.03
123	N	1	1	562.00	F	26	7	52	1.61	112.7530000000	12.39	0.04
124	N	1	1	319.00	F	28	7	52	0.98	112.8110000000	7.04	0.02
125	N	1	1	246.00	F	26	7	52	0.70	112.6750000000	5.42	0.02
126	N	1	1	107.00	F	25	7	52	0.29	112.9160000000	2.36	0.01
127	N	1	1	193.00	F	26	7	52	0.55	21.7070000000	2.09	0.01

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

NO₂ PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

- POLLN=N02 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00004 MASA1NAME=Marathon Petroleum Co LLC - Catlettsburg Refining - (continued)

Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATNY	NATND
128	N	1	1	62.00	F	26	7	52	0.18	68.00000000000000	2.11	0.01
129	N	1	1	894.00	F	30	7	52	2.95	70.00000000000000	31.29	0.10
130	N	1	1	29450.00	F	30	7	52	97.09	3.8700000000000000	56.99	0.19
131	N	1	1	705.00	F	30	7	52	2.32	45.00000000000000	15.86	0.05

MASAINAME												
plant_id												
											2711.95	7.93
											2711.95	7.93

POLLN=N02 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00005 MASA1NAME=AK Steel Corp -----

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATNY	NATND
132	N02	2101900005	019	00005	003	1	30390004	1.0000000000	0	80	1.0000000000	N
133	N02	2101900005	019	00005	003	3	30390003	1.0000000000	0	80	1.0000000000	N
132	N	1	1	26770.00	F	25	7	52	73.5440	23.0000000000	307.86	0.85
133	N	1	1	214.00	F	25	7	52	0.5879	280.0000000000	29.96	0.08

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

09:20 Tuesday, April 11, 2006 1144

NO₂ PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (INTND)
 - POLLN=NO2 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00005 MASAIDNAME=AK Steel Corp -

(continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
134	NO2	2101900005	019	00005	004	1	30390024	1.0000000000	0	80	1.0000000000	N
135	NO2	2101900005	019	00005	026	2	39000699	1.0000000000	0	80	1.0000000000	N
136	NO2	2101900005	019	00005	047	3	39000699	1.0000000000	0	80	1.0000000000	N
137	NO2	2101900005	019	00005	052	1	10200704	1.0000000000	0	80	1.0000000000	N
138	NO2	2101900005	019	00005	052	2	10200401	1.0000000000	0	80	1.0000000000	N
139	NO2	2101900005	019	00005	052	3	10200601	1.0000000000	0	80	1.0000000000	N
140	NO2	2101900005	019	00005	053	1	10200704	1.0000000000	0	80	1.0000000000	N
141	NO2	2101900005	019	00005	053	2	10200401	1.0000000000	0	80	1.0000000000	N
142	NO2	2101900005	019	00005	053	3	10200601	1.0000000000	0	80	1.0000000000	N
143	NO2	2101900005	019	00005	054	1	10200704	1.0000000000	0	80	1.0000000000	N
144	NO2	2101900005	019	00005	054	2	10200401	1.0000000000	0	80	1.0000000000	N
145	NO2	2101900005	019	00005	054	3	10200601	1.0000000000	0	80	1.0000000000	N
146	NO2	2101900005	019	00005	055	1	10200704	1.0000000000	0	80	1.0000000000	N
147	NO2	2101900005	019	00005	055	2	10200401	1.0000000000	0	80	1.0000000000	N
	SULF	UPASH	UPSUL	FUEL P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATNY	NATND
134	N	1	1	27393.00	F	25	7	52	75.2555	23.3089000000000	319.25	0.88
135	N	1	1	64.00	F	25	7	52	0.1758	100.000000000000	3.20	0.01
136	N	1	1	106.00	F	25	7	52	0.2912	100.000000000000	5.30	0.01
137	N	1	1	13497.00	F	25	7	52	37.0797	23.000000000000	155.22	0.43
138	N	1	1	93.00	F	25	7	52	0.2555	55.000000000000	2.56	0.01
139	N	1	1	120.00	F	25	7	52	0.3297	280.000000000000	16.80	0.05
140	N	1	1	4740.00	F	25	7	52	13.0220	23.000000000000	54.51	0.15
141	N	1	1	248.00	F	25	7	52	0.6813	55.000000000000	6.82	0.02
142	N	1	1	120.00	F	25	7	52	0.3297	280.000000000000	16.80	0.05
143	N	1	1	8991.00	F	25	7	52	24.7005	23.000000000000	103.40	0.28
144	N	1	1	185.00	F	25	7	52	0.5082	55.000000000000	5.09	0.01
145	N	1	1	120.00	F	25	7	52	0.3297	280.000000000000	16.80	0.05
146	N	1	1	5954.00	F	25	7	52	16.3571	23.000000000000	68.47	0.19
147	N	1	1	55.00	F	25	7	52	0.1511	55.000000000000	1.51	0.00

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS NS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

BOYD COUNTY

NO2 PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

- POLLN=N02 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00005 MASAINAME=AK Steel Corp -
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	SCC	INC	CTEFF	RE	CTEFFX	ASHF
148	N02	2101900005	019	00005	055	3	10200601	1.000000000000	0	80	1.000000000000	N
149	N02	2101900005	019	00005	056	1	10200601	1.000000000000	0	80	1.000000000000	N
150	N02	2101900005	019	00005	056	2	10200401	1.000000000000	50	80	0.600000000000	N
151	N02	2101900005	019	00005	089	2	3900799	1.000000000000	0	80	1.000000000000	N
152	N02	2101900005	019	00005	089	3	1030602	1.000000000000	0	80	1.000000000000	N
153	N02	2101900005	019	00005	100	1	1030602	1.000000000000	0	80	1.000000000000	N
154	N02	2101900005	019	00005	100	2	1030602	1.000000000000	0	80	1.000000000000	N
155	N02	2101900005	019	00005	102	1	1030602	1.000000000000	0	80	1.000000000000	N
156	N02	2101900005	019	00005	102	2	1030602	1.000000000000	0	80	1.000000000000	N
157	N02	2101900005	019	00005	102	3	1030602	1.000000000000	0	80	1.000000000000	N
158	N02	2101900005	019	00005	102	4	1030602	1.000000000000	0	80	1.000000000000	N
159	N02	2101900005	019	00005	102	5	1030602	1.000000000000	0	80	1.000000000000	N
160	N02	2101900005	019	00005	102	6	1030602	1.000000000000	0	80	1.000000000000	N
161	N02	2101900005	019	00005	111	1	30390024	1.000000000000	.	80	.	N
<hr/>												
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATNY	NATND
148	N	1	1	97.00	F	25	7	52	0.2665	280.0000000000	13.58	0.04
149	N	1	1	0.00	F	25	7	52	0.0000	178.0000000000	0.00	0.00
150	N	1	1	0.00	F	25	7	52	0.0000	47.0000000000	0.00	0.00
151	N	1	1	14.40	F	25	7	52	0.0396	50.4000000000	0.36	0.00
152	N	1	1	49.57	F	25	7	52	0.1362	100.0000000000	2.48	0.01
153	N	1	1	219.00	F	25	7	52	0.6016	100.0000000000	10.95	0.03
154	N	1	1	219.00	F	25	7	52	0.6016	100.0000000000	10.95	0.03
155	N	1	1	54.74	F	25	7	52	0.1504	100.0000000000	2.74	0.01
156	N	1	1	54.74	F	25	7	52	0.1504	100.0000000000	2.74	0.01
157	N	1	1	54.74	F	25	7	52	0.1504	100.0000000000	2.74	0.01
158	N	1	1	54.74	F	25	7	52	0.1504	100.0000000000	2.74	0.01
159	N	1	1	54.74	F	25	7	52	0.1504	100.0000000000	2.74	0.01
160	N	1	1	54.74	F	25	7	52	0.1504	100.0000000000	2.74	0.01
161	N	1	1	0.00	N	25	7	52	0.0000	0.009580000000	2.74	.

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
KENTUCKY PORTION OF THE MUNTINGTON-ASHLAND AREA

09:20 Tuesday, April 11, 2006 1146

NO₂ PROCESS EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

OLLN=NO2 AREA=Huntington-Ashland cnty_code=019 COUNTY_N=Boyd plant_id=00005 MASA1NAME=AK Steel Corp

(continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
-----	-------	----------	-----------	----------	------	-------	-----	-----	-------	----	--------	------

162 N02 2101900005 019 00005 113114 1 10300602 1.000000000000 . 80 . N

...
MASAINAME
plant_id

162 N 1168.31 3.24
MASAINAME 1168.31 3.24
plant_id

POLLIN=NO2 AREA=Huntington-Ashland cnty code=019 COUNTYN=Boyd plant id=00014 MASA1NAME=Calgon Carbon Corp ---

	Obs	SULF	UPASH	UPSUL	FUEL P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATNY	NATND
163	NO2	210190014	019	00014	011	33399999	1	1	1	Y	0.00	0.00	0.00

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMIS JS OF VOC, CO, AND NO2
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA

09:20 Tuesday, April 11, 2006 1147

BOYD COUNTY
 NO2 PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

POLLN=NO2 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00014 MASAINAME=Calgen Carbon Corp
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
164	N02	2101900014	019	00014	011	2	39000699	1.000000000000	.	80	1.000000000000	N
165	N02	2101900014	019	00014	012	1	39000699	1.000000000000	.	80	1.000000000000	N
166	N02	2101900014	019	00014	014	1	39999999	1.000000000000	.	80	1.000000000000	N
167	N02	2101900014	019	00014	014	2	39000699	1.000000000000	.	80	1.000000000000	N
168	N02	2101900014	019	00014	021	1	39999999	1.000000000000	.	80	1.000000000000	N
169	N02	2101900014	019	00014	021	2	39000699	1.000000000000	.	80	1.000000000000	N
170	N02	2101900014	019	00014	026	2	39000699	1.000000000000	0	80	1.000000000000	N
171	N02	2101900014	019	00014	031	1	30199999	1.000000000000	.	80	1.000000000000	N
172	N02	2101900014	019	00014	031	2	39000599	1.000000000000	.	80	1.000000000000	N
173	N02	2101900014	019	00014	031	3	39000699	1.000000000000	.	80	1.000000000000	N
174	N02	2101900014	019	00014	032	1	39000699	1.000000000000	.	80	1.000000000000	N
175	N02	2101900014	019	00014	034	1	39999999	1.000000000000	.	80	1.000000000000	N
176	N02	2101900014	019	00014	034	2	39000699	1.000000000000	.	80	1.000000000000	N
177	N02	2101900014	019	00014	039	1	39999999	1.000000000000	.	80	1.000000000000	N
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATNY	NATND
164	N	1	1	Y	.	.	.	.	.	0.00	0.00	
165	N	1	1	Y	.	.	.	.	.	0.00	0.00	
166	N	1	1	Y	.	.	.	.	.	0.00	0.00	
167	N	1	1	Y	.	.	.	.	.	0.00	0.00	
168	N	1	1	Y	.	.	.	.	.	0.00	0.00	
169	N	1	1	Y	.	.	.	.	.	0.00	0.00	
170	N	1	1	F	25	7	52	0.17308	140.0000000000	4.41	0.01	
171	N	1	1	Y	.	.	.	.	.	18.46	0.05	
172	N	1	1	Y	.	.	.	.	.	0.00	0.00	
173	N	1	1	Y	.	.	.	.	.	10.08	0.03	
174	N	1	1	Y	.	.	.	.	.	2.44	0.01	
175	N	1	1	Y	.	.	.	.	.	10.37	0.03	
176	N	1	1	Y	.	.	.	.	.	0.70	0.00	
177	N	1	1	Y	.	.	.	.	.	17.89	0.05	

09:20 Tuesday, April 11, 2006 148

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO2
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA
 BOYD COUNTY

NO2 PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

POLLN=NO2 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00014 MASAINAME=Calgon Carbon Corp
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHFX
178	N02	2101900014	019	00014	039	2	39000599	1.000000000000	.	80	1.000000000000	N
179	N02	2101900014	019	00014	039	3	39000699	1.000000000000	.	80	1.000000000000	N
180	N02	2101900014	019	00014	040	1	39000599	1.000000000000	.	80	1.000000000000	N
181	N02	2101900014	019	00014	040	2	39000689	1.000000000000	.	80	1.000000000000	N
182	N02	2101900014	019	00014	042	1	39999999	1.000000000000	.	80	1.000000000000	N
183	N02	2101900014	019	00014	042	2	39000699	1.000000000000	.	80	1.000000000000	N
184	N02	2101900014	019	00014	045	1	30199999	1.000000000000	.	80	1.000000000000	N
185	N02	2101900014	019	00014	045	2	39000699	1.000000000000	.	80	1.000000000000	N
186	N02	2101900014	019	00014	064	1	10200602	1.000000000000	0	80	1.000000000000	N

MASAINAME
 plant_id

Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATNY	NATND
178	N	1	1	.	Y	.	.	.	.	.	0.00	0.00
179	N	1	1	.	Y	.	.	.	.	.	9.24	0.03
180	N	1	1	.	Y	.	.	.	.	.	6.00	0.02
181	N	1	1	.	Y	.	.	.	.	.	0.84	0.00
182	N	1	1	.	Y	.	.	.	.	.	12.64	0.03
183	N	1	1	.	Y	.	.	.	.	.	0.70	0.00
184	N	1	1	.	Y	.	.	.	.	.	5.62	0.02
185	N	1	1	.	Y	.	.	.	.	.	9.10	0.03
186	N	1	1	0	F	0	7	52	0.00000	32.000000000000	0.00	0.00

MASAINAME
 plant_id

108.49
 108.49

0.31

0.31

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA
 BOYD COUNTY

09:20 Tuesday, April 1, 2006 1149

NO2 PROCESS LEVEL EMISSIONS PER YEAR (NTPV) AND SUMMER DAY (NTND)

- POLLN=NO2 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00016 MASAINAME=Marathon Petroleum Co LLC - Marine Repair Terminal -

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
187	NO2	2101900016	019	00016	002	3	10200501	1.000000000000	0	80	1.000000000000	N
188	NO2	2101900016	019	00016	002	4	10200602	1.000000000000	0	80	1.000000000000	N
189	NO2	2101900016	019	00016	003	2	10200501	1.000000000000	0	80	1.000000000000	N
190	NO2	2101900016	019	00016	003	3	10200602	1.000000000000	0	80	1.000000000000	N
191	NO2	2101900016	019	00016	017	4	10200602	1.000000000000	0	80	1.000000000000	N

	MASAINAME	plant_id										

Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWIK	WKYR	NPROD	EF	NATNY	NATND
187	N	1	1	0.0	F	25	7	20	0.00000	20.000000000000	0.00	0.00
188	N	1	1	31.7	F	25	7	20	0.22643	100.000000000000	1.59	0.01
189	N	1	1	0.0	F	25	7	26	0.00000	20.000000000000	0.00	0.00
190	N	1	1	13.6	F	25	7	26	0.07473	100.000000000000	0.68	0.00
191	N	1	1	17.5	F	25	7	52	0.04808	100.000000000000	0.88	0.00

	MASAINAME	plant_id										

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
192	NO2	2101900020	019	00020	002	1	30300908	1.000000000000	0	80	1.000000000000	N

	POLLN=NO2 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00020 MASAINAME=KES Acquisition Co LLC											
Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWIK	WKYR	NPROD	EF	NATNY	NATND
192	N	1	1	70395.0	F	50	4	26	1353.75	0.500000000000	17.60	0.34

09:20 Tuesday, April 11, 2006 1150

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO2
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA
 BOYD COUNTY

NO2 PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

POLLN=NO2 AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00020 MASAINAME=KES Acquisition Co LLC

(continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFX	ASHF
193	NO2	2101900020	019	00020	002	2	39000699	1.000000000000	0	80	1.000000000000	N
194	NO2	2101900020	019	00020	002	3	39000699	1.000000000000	0	80	1.000000000000	N
195	NO2	2101900020	019	00020	004	1	39000699	1.000000000000	0	80	1.000000000000	N
196	NO2	2101900020	019	00020	004	2	39000599	1.000000000000	0	80	1.000000000000	N
197	NO2	2101900020	019	00020	004	3	39000599	1.000000000000	0	80	1.000000000000	N
198	NO2	2101900020	019	00020	005	1	39000699	1.000000000000	0	80	1.000000000000	N

MASAINAME
plant_id

Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATNY	NATND
193	N	1	1	188.7	F	50	4	26	3.63	140.0000000000	13.21	0.25
194	N	1	1	43.8	F	50	4	26	0.84	140.0000000000	3.07	0.06
195	N	1	1	293.0	F	25	5	48	1.22	549.889000000000	80.56	0.34
196	N	1	1	0.0	F	25	5	48	0.00	20.0000000000	0.00	0.00
197	N	1	1	0.0	F	25	5	48	0.00	19.0000000000	0.00	0.00
198	N	1	1	11.0	F	50	4	26	0.21	115.1430000000	0.63	0.01

MASAINAME
plant_id

115.07

1.00

115.07

1.00

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA
 BOYD COUNTY

NO2 PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
199	NO2	2101900027	019	00027	006	1	30300302	1.000000000000	99.98	80	0.200160000000	N
200	NO2	2101900027	019	00027	007	1	30300314	1.000000000000	99.58	80	0.203360000000	N
201	NO2	2101900027	019	00027	008	1	30300308	1.000000000000	99.84	80	0.201280000000	N
202	NO2	2101900027	019	00027	009	1	30300306	1.000000000000	0.00	80	1.000000000000	N
203	NO2	2101900027	019	00027	010	1	30300303	1.000000000000	0.00	80	1.000000000000	N
204	NO2	2101900027	019	00027	012	1	30300302	1.000000000000	99.99	80	0.200080000000	N
205	NO2	2101900027	019	00027	013	1	30300399	1.000000000000	99.63	80	0.202960000000	N
206	NO2	2101900027	019	00027	014	1	30300399	1.000000000000	99.91	80	0.200720000000	N
207	NO2	2101900027	019	00027	015	1	30300306	1.000000000000	0.00	80	1.000000000000	N
208	NO2	2101900027	019	00027	016	1	30300303	1.000000000000	0.00	80	1.000000000000	N
209	NO2	2101900027	019	00027	019	2	39000702	1.000000000000	0.00	80	1.000000000000	N
210	NO2	2101900027	019	00027	019	3	10200601	1.000000000000	0.00	80	1.000000000000	N
211	NO2	2101900027	019	00027	020	1	10200707	1.000000000000	0.00	80	1.000000000000	N
212	NO2	2101900027	019	00027	020	3	10200601	1.000000000000	0.00	80	1.000000000000	N
213	NO2	2101900027	019	00027	021	1	10200707	1.000000000000	0.00	80	1.000000000000	N
<hr/>												
Obs	SULF	UPASH	UPSUL	FUEL P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATND	NATNY
199	N	1	1	374951.00	F	25	7	52	1030.09	0.030000000000	1.13	0.00
200	N	1	1	374951.00	F	25	7	52	1030.09	0.010000000000	0.38	0.00
201	N	1	1	374951.00	F	25	7	52	1030.09	0.010000000000	0.38	0.00
202	N	1	1	374951.00	F	25	7	52	1030.09	1.610000000000	301.84	0.83
203	N	1	1	374951.00	F	25	7	52	1030.09	0.016000000000	3.00	0.01
204	N	1	1	836080.00	F	25	7	52	2296.92	0.030000000000	2.51	0.01
205	N	1	1	836080.00	F	25	7	52	2296.92	0.010000000000	0.85	0.00
206	N	1	1	836080.00	F	25	7	52	2296.92	0.010000000000	0.84	0.00
207	N	1	1	836080.00	F	25	7	52	2296.92	1.610000000000	673.04	1.85
208	N	1	1	836080.00	F	25	7	52	2296.92	0.016000000000	6.69	0.02
209	N	1	1	119.00	F	25	7	52	0.33	80.000000000000	4.76	0.01
210	N	1	1	27.70	F	25	7	52	0.08	550.000000000000	7.62	0.02
211	N	1	1	1631.00	F	25	7	52	4.48	80.000000000000	65.24	0.18
212	N	1	1	2.27	F	25	7	52	0.01	280.000000000000	0.32	0.00
213	N	1	1	1628.00	F	25	7	52	4.47	80.000000000000	65.12	0.18

KENTUCKY DIVISION FOR AIR QUALITY 2004 TEMPO EMISSIONS
 ACTUAL POINT SOURCE EMISSIONS OF VOC, CO, AND NO₂
 KENTUCKY PORTION OF THE HUNTINGTON-ASHLAND AREA
 BOYD COUNTY

09:20 Tuesday, April 11, 2006 1152

NO₂ PROCESS LEVEL EMISSIONS PER YEAR (NTPY) AND SUMMER DAY (NTND)

POLLN=NO₂ AREA=Huntington-Ashland cnty_code=019 COUNTYN=Boyd plant_id=00027 MASAINAME=AK Steel Corp - Coke Plant -----
 (continued)

Obs	POLLN	ALTFACID	cnty_code	plant_id	PTID	SEGID	scc	INC	CTEFF	RE	CTEFFX	ASHF
214	NO2	2101900027	019	00027	021	3	10200601	1.0000000000	0.00	80	1.0000000000	N
215	NO2	2101900027	019	00027	022	1	10200707	1.0000000000	0.00	80	1.0000000000	N
216	NO2	2101900027	019	00027	022	3	10200601	1.0000000000	0.00	80	1.0000000000	N
217	NO2	2101900027	019	00027	023	1	39000702	1.0000000000	0.00	80	1.0000000000	N
218	NO2	2101900027	019	00027	023	3	10200601	1.0000000000	0.00	80	1.0000000000	N
219	NO2	2101900027	019	00027	024	1	39000702	1.0000000000	0.00	80	1.0000000000	N
220	NO2	2101900027	019	00027	026	1	39000702	1.0000000000	0.00	80	1.0000000000	N
221	NO2	2101900027	019	00027	026	2	10200602	1.0000000000	0.00	80	1.0000000000	N
222	NO2	2101900027	019	00027	027	1	30190099	1.0000000000	0.00	80	1.0000000000	N
223	NO2	2101900027	019	00027	043	1	10300601	1.0000000000	0.00	80	1.0000000000	N

MASAINAME
 plant_id

Obs	SULF	UPASH	UPSUL	FUEL_P	CONF	ATHJ	DWK	WKYR	NPROD	EF	NATNY	NATND
214	N	1	1	2.09	F	25	7	52	0.01	280.0000000000	0.29	0.00
215	N	1	1	1694.00	F	25	7	52	4.65	80.0000000000	67.76	0.19
216	N	1	1	2.42	F	25	7	52	0.01	280.0000000000	0.34	0.00
217	N	1	1	0.00	F	25	7	52	0.00	80.0000000000	0.00	0.00
218	N	1	1	17.24	F	25	7	52	0.05	280.0000000000	2.41	0.01
219	N	1	1	681.00	F	25	7	52	1.87	80.0000000000	27.24	0.07
220	N	1	1	459.00	F	40	7	34	3.09	80.0000000000	18.36	0.12
221	N	1	1	1.75	F	40	7	34	0.01	100.0000000000	0.09	0.00
222	N	1	1	3.51	F	25	1	1	3.51	100.0000000000	0.18	0.18
223	N	1	1	0.00	F	25	7	52	0.00	280.0000000000	0.00	0.00

MASAINAME	1250.39	3.68
plant_id	1250.39	3.68